ABSTRACT OF

The Cavendish Lecture

ON

OVARIAN TUMOUR WITH PREGNANCY.

Delivered before the West London Medico-Chirurgical Society on July 2nd, 1897,

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GENTLEMEN,—The subject which I have chosen for the Cavendish Lecture this year is the complication, Ovarian Tumour with Pregnancy. Although the condition is not one of great frequency, yet it is not one of very uncommon occurrence, while, by reason of the large mortality resulting from it, the importance which must be attributed to it is great. I have collected 375 cases of the complication, with 461 pregnancies, several of the patients having been pregnant more than once.

The first question which demands our consideration is: Is pregnancy a cause of ovarian tumours? Does gestation originate such growths in the ovary? I say that this is the first question, because it has been asserted that pregnancy frequently gives rise to these new growths. To prove this statement—that pregnancy is the cause of ovarian tumour in any given case—is, in the present state of our knowledge of the causes of tumour, not possible; but if we put the question in the following form—Does ovarian tumour occur with greater frequency in women who are or have been pregnant than it does in women who are not and have never been pregnant?—I think that I shall be able to produce evidence which will enable us to find a definite answer, and that in the negative. I have taken a series of cases of ovarian tumour in which the patients are divided into the married and the single, and I shall regard the married as mothers and the single as not mothers. This assumption may not be quite accurate, while it is the nearest approach to accuracy that I have been able to obtain. Moreover, the error in it is not so large as would at first sight appear, for the error made by regarding all married women as mothers is balanced by that made by regarding all unmarried women as not mothers.

If, then, we take the 1000 cases of ovarian tumour operated upon by Spencer Wells and divide them into groups corresponding to the age groups into which the Registrar-General divides the married and the single in the population generally, we obtain the following figures. There were in Spencer Wells's 1000 cases—

	Married.	Single.
Between the ages of 20 and 25 years	23	80
" " 25 " 35 "	133	138
" " 35 " 45 "	154	78
" " 45 " 55 "	168	65
" " 55 " 65 "	74	27
" Aged 65 " upwards	7	6

From these it is seen that between the ages of twenty and twenty-five years ovarian tumour occurs in the single rather more than three times as frequently as it occurs in the married; while between the ages of twenty-five and thirty-five it occurs with almost equal frequency in the two classes. After thirty-five years of age the proportion is reversed, and the disease is met with twice as frequently in the married as it is in the single; between forty-five and fifty-five two and a half times as often; between fifty-five and sixty-five nearly three times as often; but in those above sixty-five years of age it is found in each class with almost equal frequency. Looking at these figures alone it would appear that pregnancy is a potent factor in the causation of ovarian tumours; for from thirty-five to sixty-five years of age, when marriage may be considered to have exercised its full effects, the married contribute a far greater number of ovarian tumours than do the single. Such a conclusion is, however, quite erroneous. This apparent result of marriage arises from the change which takes place in the social condition of the population and the consequent alteration in the number of the married and the single—the number of the married undergoing rapid increase at the expense of the single. To correct the error conveyed by the figures I have given we must take into account the proportion of the number of the married to the single in the population generally at the different periods of life under which they have been grouped.

Turning to the Registrar-General's Report for 1891 I find the proportion of the married to the single women to be:—

	Married.	Single.
Between the ages of 20 and 25 years	30	70
" " 25 " 35 "	67	33
" " 35 " 45 "	83	16
" " 45 " 55 "	87	12
" " 55 " 65 "	89	11
" Aged 65 " upwards	89	11

By comparing these figures with those derived from the 1000 cases operated upon by Spencer Wells we shall have a more correct idea of the proportional frequency of ovarian tumours at the several periods of life under which they are grouped.

Now in the series of Spencer Wells we find between the ages of twenty and twenty-five years 23 married and 80 single women, or a proportion of rather more than 1 married to 4 single, while, according to the Registrar-General, the proportion of married to single women in the total population at this period of life is from 30 to 70, or 1 to 2·33; that is, speaking in proportion, 1 married woman produces one ovarian tumour, while 2·33 single women produce four, or 3 married women grow three tumours, while 7 single women grow twelve. Did ovarian tumours occur with equal frequency in the married and in the single between the ages of twenty and twenty-five years, the number in Spencer Wells's series would not be 23 married and 80 single, but 34 married and 80 single.

In the next group—between the ages of twenty-five and thirty-five years—this difference in the comparative freedom from ovarian tumour in favour of married women becomes still more marked, for in this group, in the series of Spencer Wells, I find 133 married and 138 single women. According to the Registrar-General's report the total number of married to the total number of single women in the population is as 67 to 33—that is, the married are twice as many as the single, and yet the single women furnish rather more ovarian tumours than the married. This disproportion is still more emphasised in the two next groups.

Between the ages of thirty-five and forty-five years there were 154 married and 78 single women the subjects of ovarian tumour. Here the number of the married is just twice that of the single. But what is the proportion between the number of the married and of the single in the general population? The Registrar-General states that they are as 87 to 12, or more than seven times as many, and yet, instead of producing seven times as many tumours, the married only furnish us with twice as many as the single.

Between the ages of forty-five and fifty-five years in the series of Spencer Wells, the number of the married is 168 and of the unmarried 65, while in the general population at this period of life the married are to the unmarried as 89 to 11, or eight times as many, and yet they show only two and a half as many ovarian tumours. The same remarks apply literally to the next group, while the difference in favour of the married is still more marked in women of sixty-five years and upwards.

Between the ages of fifty-five and sixty-five years there were 74 married and 27 single women operated upon by Spencer Wells, while the proportion of the married to the single in the general population is eight to one; yet the single present nearly a third as many ovarian tumours as the married, or nearly three times their proper share, were both classes subject equally to ovarian tumours. At sixty-five years and upwards there were 7 married and 6 single women in Spencer Wells's series, while in the general population there are eight married for every unmarried woman. At this period of life, then, a number of single women furnish eight ovarian tumours for every single tumour presented by the same number of married women.

I now turn to another aspect of the question. If pregnancy, as has been maintained, is a cause, and a frequent cause, of ovarian tumour, it may fairly be expected that with each successive pregnancy the liability to ovarian tumour would increase. I find, however, among the cases of ovarian tumour with pregnancy which I have collected, in the first place, that of the 228 cases in which the number of the pregnancy is noted 87, or more than one-third of the total

were primiparæ. Again, not only do primiparæ form so large a proportion of the total number of cases, but ovarian tumour with pregnancy does not only not occur with greater frequency, but it becomes on the whole rarer with each successive pregnancy, for among the cases there are—

In the second pregnancy	...	...	...	30	instances	only.
,, third ,,	...	...	...	21	,,	,,
,, fourth ,,	...	...	...	14	,,	,,
,, fifth ,,	...	...	...	15	,,	,,
,, sixth ,,	...	...	...	9	,,	,,
,, seventh ,,	...	...	...	11	,,	,,
,, eighth ,,	...	...	...	4	,,	,,
,, ninth ,,	...	...	...	7	,,	,,
,, tenth ,,	...	...	...	1	,,	,,
,, eleventh ,,	...	...	...	2	,,	,,
,, twelfth, fifteenth, and nineteenth each				1	,,	,,
and other multiparæ	...	...	...	26	,,	,,

This shows almost a steady diminution of ovarian tumour with each successive pregnancy, the reverse of what we should expect were gestation a cause of ovarian growth.

These facts—namely, (1) that the proportion of cases of ovarian tumour in the married to the number of married women in the population is far smaller than the proportion of cases of ovarian tumour in single women to the number of single women in the population or, in other words, that ovarian tumour is proportionately far less frequent in the married than in the single; (2) that a large number of the cases of ovarian tumour with pregnancy occur in primiparæ, and that 25 of the cases were known to be the subjects of the tumour before conception had occurred, and that 57 were subjects of dermoid cysts, thus making a total of 82 in which the tumours were present before gestation commenced; and (3) that ovarian tumour with pregnancy is met with on the whole with less frequency in each successive pregnancy appears to show that pregnancy is not a factor in the causation of these growths.

The next question that demands our notice is, Does pregnancy occurring in the subject of an ovarian tumour favour the growth of the tumour? This must be considered under two separate heads—(1) Does the process of gestation itself give an impulse to the growth of the tumour; and (2) Does the tumour grow more rapidly after labour and during the lying-in period?

[Sir John Williams here discussed the first of these questions at considerable length. His conclusions were as follows:]

There is no uniformity in the conduct of the tumour in different cases. The whole of this evidence and the small number of the cases in which the growth of the tumour was rapid appear to show that pregnancy exercises no influence in accelerating the growth of ovarian tumours. The second part of the question relating to the growth of ovarian tumours in connexion with pregnancy is, What is the effect of delivery and lying-in upon it? Is it to accelerate it? It has been held that delivery, by diminishing the intra-abdominal pressure, relaxing the tension of the abdominal walls, and removing pressure from the tumour gives rise to rapid increase in it. I will not discuss this theory, but simply state that I attach no weight to it, and proceed to lay before you the facts which I have collected bearing on the question, and which to my mind furnish the answer to it. After 69 deliveries the tumour appears not to have grown, and after 32 it increased in size. In one of the 32 cases a sudden increase took place on the fourth day; in another a like increase occurred on the ninth day; 9 of the cases are said to have increased slightly, slowly, or gradually (1 during an attack of peritonitis, and 1 suppurated); 11 increased rapidly, 3 of them with peritonitis, or while undergoing suppuration. The sudden increase in 2 cases, the one on the fourth and the other on the ninth day, is probably due to twisting of the pedicle or hæmorrhage into the cyst, while peritonitis or suppuration was probably the cause in 3 cases. This leaves 8 cases in which there was rapid growth of the tumour after delivery, and 69 in which there was no appreciable growth, and 19 in which there was no unusual growth; that is, a total of 88 cases in which there was no unusual increase, and of 8 in which the tumour grew rapidly. These figures seem to show that the influence of delivery and the puerperal processes is not to accelerate the growth of ovarian tumours. There are some observations in the notes which are interesting in this connexion, because they refer to another kind of change in the ovarian tumour after delivery—a diminution in size instead of an increase. In one case observed by Dr. Milne the patient had three children, and the tumour is said to have diminished in size after each pregnancy. In one case the cyst ruptured during labour, and no trace of it could be found during a subsequent labour. In another the cyst burst some time after the puerperal period, and the abdomen was tapped. No trace of the cyst could be found at the following labour. In another the tumour disappeared, and the patient had two children afterwards. In another the tumour disappeared and could not be found in a subsequent pregnancy. In another the tumour was tapped twice and drained after the second tapping; the cyst suppurated, but gave no further trouble. The patient had living children subsequently. In another the cyst suppurated and discharged pus and hair, and gave no trouble at the next confinement; and in a case recorded by Dr. Robert Lee the tumour decreased considerably in size after delivery, and the administration of liquor potassæ. Of the eight cases the tumour is said to have decreased in size after delivery in two, to have disappeared with or without rupture in four, and to have given no trouble after having undergone suppuration in two. The cysts which disappeared not to refill after rupture may have been, and probably were, cysts of the broad ligament.

I pass on now to consider very shortly the question of the relation of pregnancy to malignant disease of the ovary. Leopold has made the extraordinary and startling suggestion that pregnancy is a cause of cancer of the ovary; and Wernich holds that pregnancy occasions malignant degeneration of ovarian cysts. Leopold bases his suggestion upon two cases—one published by Spiegelberg and one observed by himself. Spiegelberg's case is briefly as follows. The patient, who was thirty-six years old, was pregnant for the second time; she was delivered of twins on March 20; one was dead at birth and the other died in the course of a few hours. The tumour was discovered after the delivery. On March 30 the patient died uræmic with peritonitis, the result of hæmorrhage into the cyst and rupture of it. Both ovaries were changed into masses of myxo-sarcoma carcinomatosum, no trace of ovarian tissue remaining. Leopold's case regards a patient, thirty-six years of age, pregnant for the third time. She bore her second child in her thirty fourth year, after which she menstruated regularly until her thirty-fifth year, when menstruation ceased, and in December, 1863, she gave birth to a six months' fœtus. After her delivery the medical man discovered an abdominal tumour, the nature of which was not clear. Puncture proved it not cystic. She died about two months after her confinement. Each ovary was of the size of a man's head and a mass of medullary cancer.

These two cases form a very slight foundation for the theory that pregnancy is a cause of cancer of the ovary. Even if it were known that both ovaries had become the seat of disease in the course of pregnancy, Leopold's theory would be almost like a pyramid standing on its apex. But even this meagre knowledge is not forthcoming, for in both cases the tumour was not discovered until after delivery, and the state of the organs at the time of conception is not known, and the inference that the disease began in the course of, and was caused by, pregnancy is a pure assumption. Indeed, the only conclusion which can be drawn from these two cases is that the ovaries were not entirely cancerous at the time of conception, that a portion of the ovarian tissue was healthy and capable of discharging an ovum.

Wernich's view that pregnancy gives rise to malignant degeneration in previously benign growths is based upon an equally slender foundation—namely, two cases—one observed by himself and one by Kursteiner. The original report of Kursteiner's case I have been unable to obtain, and the extracts given from it by Wernich are of too meagre a character to be of any value. Wernich's case was a woman, twenty years of age, who had suffered from pleurisy for a long time, and was known to have a tumour in the abdomen, the nature and point of origin of which were doubtful. Whether there was any relation between the tumour and the pleurisy is not stated. The tumour, however, gave the woman no trouble, and remained indolent for one year. She conceived and miscarried at the eighth month. Shortly before the miscarriage she complained of violent pain in the tumour. She rapidly lost flesh, and died three weeks after her delivery. No marked growth of the tumour was observed during pregnancy or after delivery. Labour was not hindered by it. At the necropsy the right ovary was found to be a mass of medullary cancer, breaking down in places. No trace of the original structure of the ovary was discovered,

but in the tumour was found a small cyst having glairy contents with papillary growths on its inner surface. The remarks made respecting Leopold's view and the reasons for them are applicable to Wernich's; but, further, in considering Wernich's view it should be remembered (1) that cancer is occasionally found in cystic tumours of the ovary; and (2) that after the removal of cysts which appear to be of a benign character malignant disease sometimes develops in the stump of the pedicle, and in these two well-known facts are to be found, I think, the explanation of Wernich's case, and not in what I must characterise as a far-fetched theory of a malignant influence exercised by pregnancy. Moreover, cancer of the ovary, apart from pregnancy, is not very uncommon, but I have no means of judging of its frequency except by my own experience, and if I may judge by that, cancer of the ovary with pregnancy does not appear to be proportionally more frequent than cancer of the organs apart from that condition.

[Having shown that pregnancy does not originate ovarian tumours, benign or malignant, that it does not accelerate their growth, and that it does not cause malignant degeneration of benign tumours, Sir John Williams proceeded to describe the effects of gestation, delivery, and the puerperal processes upon these growths, the effects being twisting of the pedicle, rupture and laceration of the tumour and their consequences, hæmorrhage into the cyst, and suppuration. He stated that twisting of the pedicle was said to have occurred in twenty-one instances among the cases collected, or about 6 per cent. In the 375 cases of ovarian tumour with pregnancy he found that rupture of the ovarian cyst occurred 13 times, or 3·5 per cent., during gestation. During labour and after parturition it happened 25 times, or in nearly 10 per cent. of the cases and 8 per cent. of the pregnancies. He continued:]

I have now finished what I have to say respecting the influence of pregnancy upon ovarian tumours, and I have yet to consider the influence of the tumour upon pregnancy, labour, and lying-in. We find that abortion or premature labour occurred spontaneously in 58 out of 461 pregnancies. In 24 of the cases the tumour was cystic and in 5 dermoid, the total of cystic tumours being 221, and of dermoid 71, so that abortion appears to be somewhat more frequent with cystic than with dermoid tumours. Abortion or premature labour occurred in 8 out of 14 cases of cancer, and was induced in 1, while nothing is stated upon the point in 5, so that cancer appears to have a baneful influence on gestation. The part played by ovarian tumours in labour depends firstly and largely upon the situation of the tumour, and, secondly, and in a less degree, on its size. When the tumour is placed in the pelvis, even when of comparatively small size it impedes the passage of the child; on the other hand, if it be situated in the abdomen, it depends mainly upon its size whether it does or does not interfere with the progress of labour. Among the cases I have collected there are 178 (or about 2 out of 5) in which the labour was more or less natural—that is, delivery was effected without artificial help. To realise the difficulties caused by these tumours during delivery we must look to the cases which required artificial help, and to the examination of these I now turn. The means which have been employed to overcome these difficulties are reposition, or raising the tumour from the pelvic into the abdominal cavity, so as to place it out of the way of the descending head. In many cases this could not be accomplished, then tapping was resorted to, forceps, version, craniotomy, and Cæsarean section, or ovariotomy, as circumstances dictated.

[Sir John Williams here gave statistical details of the results of these various procedures. He continued:]

The mortality consequent upon ovarian tumour complicating pregnancy is very great, and is only equalled in midwifery by that occurring in severe outbreaks of puerperal fever.

The mortality after tapping is	... ...	26 per cent.[1]
" " " forceps is	... ...	29 " "
" " " version is	... ...	35 " "
" " " craniotomy is	... ...	44 " "
" " " abortion and premature labour is	... ...	17 " "
" " " Cæsarean section is...	...	90 " "
" " " ovariotomy is...	... ...	10 " "

The great mass of this mortality take place after delivery. Comparatively few cases die during pregnancy when not interfered with. It is clear from the record of deaths that little can be done to diminish the danger by the usual obstetric operations, and it seems to me that our efforts should be directed to the prevention of injury to the ovarian growth and the parts adjacent to it, abdominal and pelvic. At present I see but two ways in which this can be accomplished. One is the removal of the tumour during pregnancy or labour, and the other is the anticipation of labour by the Cæsarean section. Small tumours situated in the abdomen, or tumours situated in the pelvis, which can be raised up into and retained in the abdomen, do not appear to suffer much injury during labour, but with this exception I think that all cases should be operated upon. I should have recourse to Cæsarean section only in cases in which the removal of the tumour is found to be impossible, be it from adhesions deep down in the pelvis to the uterus or for other cause. On the other hand, ovariotomy during pregnancy is a tried operation, and it has proved as successful during pregnancy as apart from pregnancy, and it gives a mortality of less than half that from natural labour with ovarian tumour; and no other method of treatment has as yet given, nor does any promise, such good results.

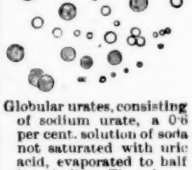
[1] In a large number of the cases operated upon more than one operation was resorted to, such as tapping, forceps, craniotomy, and the same cases appear therefore under each of the operations.

ON THE PATHOGENESIS OF GOUT.[1]

BY DR. C. MORDHORST.

BEFORE proceeding to my actual theme I will refer in a few words to the results of a considerable number of experiments and observations under the microscope, which will shortly be published in the *Zeitschrift für Klinische Medicin*. Whenever uric acid is added to an alkaline fluid the base of the latter combines with the former, producing a uric acid salt (urate). When the solution is over-saturated with the salt it becomes in the first instance precipitated in the form of small globules, which run together and form larger globular masses. On first forming, these globules are so minute that they are invisible even with the highest powers of the microscope. As the drop of fluid on the slide begins to evaporate they soon begin to appear in the microscopic field as barely visible specks. They may attain a variety of sizes and even become fifty, or more, times as large as leucocytes. They may with advantage be called globular urates (Kugelurate). The term "amorphous" is incorrect, as they are invariably distinctly globular in shape (Fig. 1). The quantitative composition of these globular urates is very variable. The greater the excess of alkalies, say, sodium, the solution contains, the more base and the less acid enters into the composition of the salt. Properly speaking, a crystalline salt, consisting of two molecules of sodium and one molecule of uric acid, the so-called neutral sodium urate, does not exist. This combination, as well as all others which contain more sodium than uric acid, does not form crystalline salts, but globules, or globular urates, and possesses the property of being decomposed sooner[2] or later

FIG. 1.



Globular urates, consisting of sodium urate, a 0·6 per cent. solution of soda not saturated with uric acid, evaporated to half its bulk. The large globules were of a pale yellow. The more uric acid these urates contain the darker they become in colour. Enlarged 140 times.

FIG. 2.

Needle urates composed of biurate (acid sodium urate). The sediment from a 1 per cent. solution of soda supersaturated with uric acid, after twenty-four hours. Enlarged 140 times.

[1] A paper read at the Medical Congress at Wiesbaden in 1898.

[2] I have used the term acid urate of sodium throughout this translation, although the common term is biurate.

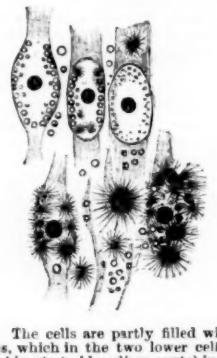
into acid urate of sodium and sodium. In order to have a short term for these urates I have called them "needle urates." The time necessary for the crystallisation of the "globular" forms is longer the more sodium they contain (Fig. 2).

The sole cause for the precipitation of globular urates is the super-saturation of a solution already containing them. Such a super-saturation of a solution saturated with uric acid occurs: (*a*) on adding more uric acid; (*b*) on evaporating some of the water in the solution, either by exposure to air or by boiling, or by the addition of some colloid substance (albumin, starch, or gum), which absorbs some of the water as it dissolves; (*c*) on cooling the solution when it has become saturated, or nearly saturated, with globular urates at a higher temperature, since a warm super-saturated solution can hold more globular urates in complete solution than a cold solution; and (*d*) on diminishing the alkalinity of the solution by the addition of acids or acid, neutral or faintly alkaline salts. This is partly due to their taking up some of the water as they dissolve, as was the case with colloids. The solubility of globular urates is directly proportional to the amount of sodium they contain. The globular urates are always a first stage in the formation of needle urates, and on these latter dissolving the former are a transition stage. The largest amounts of uric acid and needle urates are dissolved in a solution containing between 0·4 and 0·7 per cent. sodium carbonate, sodium bicarbonate, or bisodium phosphate. In the fluids of the body uric acid circulates as a urate in the invisible globular form. After these preliminary remarks I pass on to the more intricate processes leading to the deposition of uric acid.

To begin with, I would remark that sodium urate is only deposited in those organs and tissues which are sparingly or not at all supplied with blood-vessels, and the nutrition of which accordingly takes place only or principally by means of lymphatic vessels or lymph spaces. The connective tissue of muscles, fasciæ, tendons, tendon sheaths, nerve sheaths, ligaments, cartilage, perichondrium, or periosteum are almost exclusively the seat of gouty affections. There must of course be some reason for this. I have already on a previous occasion made the suggestion that the difference in reaction of the fluids of these tissues and of the blood is the only cause producing these results. My recent and numerous experiments have confirmed this belief. Maly has proved that acids filter more rapidly through animal membranes than do alkalies and alkaline salts. That the former diffuse more rapidly than the latter was shown by Hoffmann, Runeberg, Chahrié. Cartilage and connective tissue cells, which lie far removed from blood capillaries, are nourished by processes of filtration, diffusion, and osmosis. This mode of nutrition, however, must of necessity lead to a lessened alkalinity both of the above-mentioned cells and of their intercellular substance. As long as the alkalinity of the blood and the quantity of uric acid in it remain normal there is, even under circumstances otherwise unfavourable, no deposition of sodium urate in the cartilage and connective tissue. But should the alkalinity of the blood diminish and the amount of uric acid increase—as, according to the results of older as well as more recent experiments (Klemperer), is the case in gout—then conditions exist under which a deposition of urates in cartilage and connective tissue can occur. In my opinion the actual process is as follows.

The organ or tissue in question has been rendered very rich in fluids by previous functional activity. Any blood-vessels in the tissue itself or in the immediate neighbourhood are strongly dilated. The lymphatics of the tendons and fasciæ of the muscles, which possess numerous stomata, are likewise distended far beyond their normal state—viz., at rest. The interchange of fluids between the connective tissue cells and the intercellular spaces on the one hand, and the lymph spaces of the tissues and the lymphatic vessels on the other hand, is excessively active, and the difference in their reaction is very slight accordingly. Now if there should be a sudden cessation of this activity in the tissues, and if they are suddenly cooled down by the influence of external cold, then a rapid change takes place in their nutrition. Owing to the irritation due to cold the tissues contract and the blood-vessels and lymphatics do the same. The interchange of fluids is reduced to a minimum; the processes of filtration, diffusion, and osmosis are much slower; the alkalinity of the protoplasm of the cells, of the intercellular substance, and of the synovia of the joints and tendon sheaths decreases. The cooling of the fluids, their loss of water, and their diminished alkalinity all combine to produce a super-saturation with globular urates, and therefore a precipitation of the latter, both in the connective tissue cells themselves, in the intercellular and lymph spaces, and in the synovial fluids. This occurs all the more readily, as, owing to the cooling of the tissue, which up till now had been very full of fluids, the water or less concentrated fluid is forced most rapidly through the cell membranes. The protoplasm of the cells as well as of the intercellular substance contains sodium urate in such quantities that the combined action of the above-mentioned factors leads to their precipitation, first, in the small globular form, possibly even invisible under the microscope. In the cells these accumulate near the cell membrane and enlarge by fusion. But even in the intercellular substance the globular urates accumulate on the outer surface of the cell membranes, or, if the precipitation is copious, are forced towards the lymph spaces. Here they may accumulate to such a degree as to block not only the exits of the lymph spaces, but even the lymphatic vessels, and this, if continuing for some time, may cause obstructive œdema, inadequate nutrition of the tissue with consequent degeneration (Ebstein's necrosis), and finally pain. The subjoined semi-diagrammatic figures are intended to demonstrate this process (Figs. 3, 4, 5, and 6). Now as long as

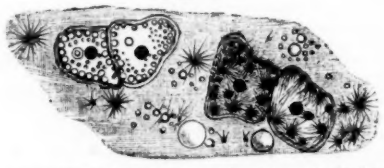
FIG. 3.



Fibro-cartilage. The cells are partly filled with very small globular urates, which in the two lower cells have thrown out needles of biurate (acid sodium urate) in all directions. In the intercellular substance between the longitudinal fibres both globular and needle urates are seen. Early stage; at a later stage the globules completely disappear.

the globular urates retain their forms we have, in my opinion, to deal with "rheumatism," that well-known complaint from which every elderly person probably at some time or other suffers. If within from half an hour to a few hours this "rheumatism," which has arisen from a sudden chilling of the tissues attacked, is properly and efficiently treated—namely, by massage, hot applications, &c.—it will disappear just as rapidly as it appeared. With the

FIG. 4.



Articular cartilage with globular and needle urates in the cells and intercellular substance.

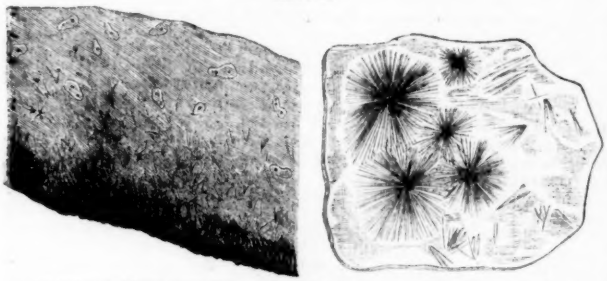
rapidly increased supply of blood to the tissue, warmth, water, and alkaline salts are brought to it. The combined action of these three factors is a solution of the globular urates, which, added to the more rapid circulation of the fluids, in a short time bring the tissue to a normal state.

Should the "rheumatism," however, not be treated so rapidly or efficiently, or should the tissue be frequently exposed to such chills, then the globular urates are not completely re-dissolved—a certain amount remains behind in the tissues and produces symptoms of pain on pressure or movement. In those cases of so-called "chronic articular

rheumatism," where no deposit of acid sodium urate can be demonstrated microscopically after death, the precipitated urates have retained their globular form and have not been recognised as such. Scrapings of the tissues of parts thus affected would no doubt prove the presence of urates far more often if the murexide test were always employed.[3]

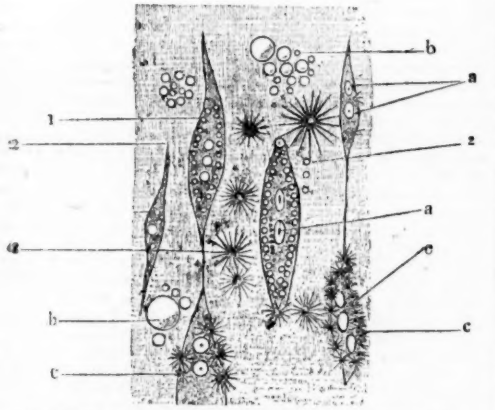
Now, why is it that these globular urates do not change into needle urates? In the course of my introductory remarks I referred to the fact that globular urates are converted into needle urates more slowly in proportion as there is more sodium and less uric acid in their composition. My experiments show that even when very poor in acid and very rich in sodium these globular urates may ultimately change into needle urates, often after six or eight weeks, provided they remain in their original fluid. This is not always the case, however, and I only mention the fact without attempting to give any explanation for it. In the living organism the conditions are very different from those existing during experiments outside the body. I take it that in the former, solution and re-formation of globular urates go on side by side, and the globular urates often have no time to change into needle crystals. The blood of persons suffering from "chronic rheumatism" is less alkaline than that of a healthy person, as shown by Lepine, but yet is more alkaline than that of a person suffering from well-marked gout. The alkalinity of the blood varies, not only with each individual, but even in the individual it varies according to the time of day; this latter variation is, however, confined within definite limits. Klemperer has quite recently proved that in gouty individuals the alkalinity of the blood is considerably below the normal standard, but here also we find variations. If only slightly below normal we are dealing with gouty patients suffering from so-called "chronic rheumatism." Klemperer's investigations have proved that the quantity of uric acid in the fluids of the body is inversely proportional to the amount of alkaline carbonate they contain. This result is in perfect accord with the results of numerous experiments by F. Walter, F. Chvostek, Kleine, Hartnack, and others, according to whom the protoplasm owes its capacity for taking up oxygen entirely to the presence of alkaline carbonates in its composition.

FIG. 5.



Articular cartilage after Garrod, enlarged 220 times. The globular urates have become completely converted into needle urates and stellate groups of needle urates.

FIG. 6.



Connective tissue showing deposition of needle urates and globular urates in the cells and intercellular substance. 1. Connective tissue cells with nuclei (a). 2. Intercellular substance; (b) Globular urates; (c) needle urates and stars of needle urates.

The more alkaline carbonates a tissue contains the greater is its capacity for taking up and utilising oxygen, and the more active therefore is the oxidation of uric acid. In persons in whom the alkalinity of the blood is only slightly below normal the quantity of uric acid present is only slightly above normal; the globular urates therefore contain relatively little acid in their composition, and so retain their globular form for a long time. Where the alkalinity of the fluids is less, and the quantity of uric acid in the blood greater, the precipitated globular urates contain more uric acid and less sodium, they give up some of this sodium to the surrounding fluids, and themselves become converted into needle urates of acid sodium urate. These are the only deposits of urates which are considered characteristic of gout by most authorities. I am convinced that "chronic gout" arises in the following way. The earliest stage is not distinguishable from chronic rheumatism; the accidental and exciting causes are identical. Whereas, however, in the latter the globular urates contain relatively little uric acid, in gout they contain a large amount. My experience is that globular urates which are rich in uric acid often become converted into needle urates and stars of needle urates within from half an hour to twenty-four hours and even less. Now in chronic gout a similar conversion of globular urates takes place, although under certain circumstances a considerable interval of time may elapse before the process is completed. When completed the acute and spontaneous pains diminish, and the uratic deposits only prove their presence by tenderness felt on pressure or movement. The signs of inflammation, pain, redness, and œdema owe their appearance to the accumulation of, and blocking by, the globular urates in the cells, intercellular substance, lymph lacunæ, and lymphatics. Just as globular urates are a first stage in the development of needle urates, so also the deposition of the former precedes the deposition of the latter; in other words, "rheumatism" often precedes chronic gout.

Let us now investigate more in detail the transformation of globular urates into needle urates and its consequences. I have already mentioned that globular urates tend to be pushed towards the cell membrane of the cells in the cartilage and connective tissue, and here accumulate in number and enlarge in size by fusion. Sooner or later they commence to throw out needles at their periphery, and ultimately form stars of needle urates; these latter pierce the protoplasm and cell membrane, which is also pierced by the needles on its outer surface. The cell membrane and cell become completely destroyed, and in this way necrosis of the tissue commences. As this process of needle formation extends, so the necrosis increases. In this case, therefore, the deposition of globular urates is the primary event and the necrosis is secondary. Von Noorden's "ferments" and Klemperer's "gichtstoff," are accordingly nothing more than globular urates, originally minute, but which have enlarged rapidly, have formed needles in all directions, and so killed the tissues.

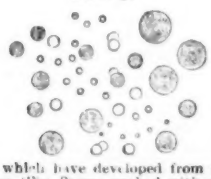
It still remains for me to discuss the origin of an acute attack of gout. Before giving my views on this subject I would beg you to picture to your mind the appearances seen under the microscope when a drop of dilute acid is added to some solution of soda saturated with uric acid, which drop has been placed on an uncovered slide. In the centre, which gives an acid reaction, a turbidity soon appears, from which uric acid crystals will have developed in a few minutes. The outer zone gives an alkaline reaction and

[3] Levison (Copenhagen) examined the metatarso-phalangeal joints of one or both feet, and in some cases other joints also, in forty post-mortem examinations. In twelve cases he was able to prove the presence of uratic deposits by means of the murexide test, although only a few joints were examined.

contains larger or smaller globular urates. The intermediate zone, giving a neutral or faintly acid reaction, presents long and well-formed crystals often fifty times, or more, larger than white corpuscles. The process in an acute attack of gout I represent to myself as follows: Owing to some incidental circumstance—e.g., a good dinner accompanied by considerable indulgence in wine or beer, or some digestive disturbance—the alkalinity of the blood becomes greatly diminished. Owing to filtration, diffusion, and osmosis the already greatly reduced alkalinity of the tissue fluids becomes further diminished, the fluids are no longer capable of holding the globular urates in solution, and these are accordingly precipitated as minute globules, resembling urates deposited in urine, and their accumulation in large quantities gives rise to those prodromal symptoms so often preceding an acute attack of gout. If the alkalinity of the blood is still further decreased, so that the fluids of the body become either neutral or even faintly acid, then the large crystals above mentioned form and block up the lymphatics of the neighbourhood more or less completely, even if the vessels are of large calibre. The mechanical irritation and the lymphatic obstruction thus produced give rise to severe inflammatory symptoms, œdema, &c. The attack will continue so long as the acidity of the fluids lasts. On renewed increased alkalinity the inflammatory symptoms subside, because the crystals have been again converted into globular urates. Should the alkalinity increase still further the globules become dissolved and the attack has passed off, leaving no sequelæ. If, on the other hand, the alkalinity still remains at a low level the globular urates will persist as such for some time, and finally become converted into needle urates. In this case uratic deposits have formed in the affected tissues. This theory, therefore, also explains the fact that in some cases an acute attack of gout leaves no deposits, whilst in other cases distinct deposits are left.

I still have to mention a phenomenon which until now has never been satisfactorily explained—the exacerbation of gouty symptoms so frequently observed during a course of treatment by baths and the waters here in Wiesbaden. This is a fact so generally recognised that there can be no doubt

FIG. 7.



Globular urates which have developed from needle urates. The preparation (Fig. 2) was washed with water, and two drops of half normal solution of soda (NaHO) were added. In about half an hour, after the fluid had been reduced to about one half by evaporation, the preparation presented the appearance shown (Fig. 7). The solution of sodium carbonate acts more slowly, but the result is the same. Enlarged 140 times.

as to the correctness of the observation. Both during the bath, and for a short time after, the tenderness on pressure and on movement is lessened. This is almost invariably the case and persists during the whole course of treatment. The use of "Kochbrunnen" baths hardly ever leads to an aggravation of symptoms when these are the result of acute gout or articular rheumatism, the sequelæ of which—viz., swelling and tenderness—may under ordinary circumstances persist for a very long time. A steady and progressive improvement is almost always the rule, relapses and exacerbations occurring only after some error in diet, especially over-indulgence in beer or wine, over exertion, or a sudden chill. Very different indeed is the influence of "Kochbrunnen" baths on persons suffering from chronic gout. Here we find that even after a few baths the symptoms are aggravated, not only in the parts previously affected, but even in parts previously free from pain or which have never been the seat of pain. E. Pfeiffer has had the same experience but has never attempted an explanation. Such an explanation is, however, by no means difficult after my observations as to the behaviour of globular urates and needle urates as seen under the microscope. As I have already remarked, globular urates form, not only the first stage in the development of needle urates, but also the transition stage in their decomposition and dissolution (Fig. 7).

As already stated, the globular urates retain their globular form both in rheumatism and in chronic rheumatism. Hot baths tend to raise the temperature of the fluids in the tissues, strong alkaline waters, massage, &c., raise their alkalinity, the globular urates take up more of the base and become more soluble. As they dissolve improvement takes place. Attacks of acute articular rheumatism often leave obstinate sequelæ, which, however, gradually disappear under the influence of hot "Kochbrunnen" baths. The great tendency such patients exhibit of developing gouty deposits at a later period is probably due to the nutrition of the affected parts not being quite normal, and the alkalinity of the fluids being somewhat below normal as a result.

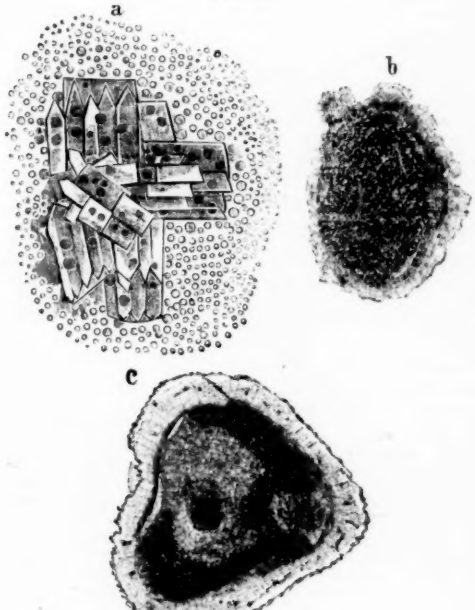
In acute gout uric acid crystals have formed during the attack owing to the slightly acid condition of the fluids in the diseased parts. As soon as alkalinity supervenes the bases combine with the uric acid to form globular urates. These may retain their globular form for some time during the continuance of the alkalinity of the fluids, and by accumulating in the lacunæ and lymphatic vessels may give rise to symptoms of inflammation and obstruction such as redness, œdema, &c. The great access of warmth due to the hot baths raises the temperature of the fluids; the large amount of acid salts eliminated by the perspiration and the absorption of alkalies increases the alkalinity of the tissue fluids and a more rapid circulation of the fluids bathing the globular urates occurs. By a further augmentation of these several factors or a long continuance of their action, or a frequent repetition of the same, the globular urates are finally completely dissolved and the last traces of the attack removed. In all the above instances the use of baths and strong alkaline mineral waters, &c., produces a steady improvement, and relapses hardly ever occur.

Very different, indeed, are the phenomena observed during the cure of cases where true gouty deposits of acid sodium urate, needle urates (chronic gout), exist. The increase of temperature, alkalinity, and increased circulation of the tissue fluids brought about by hot baths, strong alkaline mineral waters, massage, physical exercise, &c., renders the needle urates capable of combining with more sodium, whereby they become converted into globular urates, which in the early stages of the change are very minute or invisible. By accumulation and fusion they enlarge and may attain a size fifty times larger than a leucocyte. That under these circumstances obstruction of the lacunæ and lymphatic vessels, and hence stasis and its consequences, may be produced, just as occurred during the formation of the deposits, is obvious. Swelling, pain, œdema, and occasionally, though rarely, redness appear, and the patient—and often even the medical attendant—who does not know how to explain these phenomena, is surprised, and thinks that this long-vaunted remedy is aggravating instead of ameliorating his condition; nay, more, is even producing fresh pain in parts so far unaffected (latent gout). If the treatment is persevered with the new attack or exacerbation of symptoms may persist weeks, sometimes even longer. As soon as the treatment is interrupted or the baths only are stopped the dissolution of the needle urates soon ceases and with it the aggravation of the symptoms. The cause of the long continuance of the latter is to be found in the continual and persisting conversion of needle urates into globular forms, for although the latter are gradually being dissolved by the combined action of the above-mentioned factors, still fresh accumulations are constantly occurring in the neighbourhood of the deposits. This formation and destruction of the globular forms, and hence also the inflammatory phenomena, would continue in a greater or less degree until the last traces of uratic deposit have disappeared, provided the treatment is steadily persevered with. As this, however, would entail a course of treatment extending in some cases over several months, or even longer, a continuous course of treatment is not usually insisted on. As a rule the baths are suspended after from four to six weeks, and any deposits of needle urates still remaining are left to be attacked in the following year. In almost all cases a decided improvement takes place sooner or later after the bath treatment, and this is maintained so long as the patient is not exposed to fresh sources of danger. Frequently, however, even the most painstaking attention to a severe regimen is of no avail, fresh attacks constantly occurring as soon as the alkalinity of the tissue fluids falls to far below the normal standard and accidental exciting causes, such as a chill, unaccustomed indulgence in spirituous liquors, dinners, &c., come into play. In order to avoid any such

fresh attacks as far as possible it is advisable, as a prophylactic measure, to administer so much of some powerful alkaline muriated water from day to day as will suffice to keep the urine faintly acid, and occasionally even neutral or faintly alkaline in reaction.

Naturally the greater the amount of alkali introduced into the blood the more readily is the alkalinity of the fluids maintained at a level as nearly as possible approaching the normal. As, however, the introduction of large quantities of soda into the organism leads to the abstraction of an abnormal amount of salt (NaCl) from the latter (Stadelmann, Kleine, and Hartnack, and many others), it is necessary to add more salt to the ingesta. Finally, since the experience of English authorities (Duckworth, Thin, Moore, &c.) shows that lime salts hinder the elimination of uric acid, it follows that the patient should be ordered a mineral water which contains as much soda and salt and as little lime salts as possible. Of all known mineral waters, the Wiesbaden water satisfies these requirements most completely, as is clearly

FIG. 8.



a, Shows a mass of uric acid crystals from the urine of a man who suffers from renal calculus. After he had taken two bottles of Wiesbaden water daily for several days his urine became strongly alkaline and free from crystals. The mass of crystals was placed on a hollow slide and a few drops of his alkaline urine were added. The preparation was then placed under a glass bell to prevent evaporation. After two hours the mass was seen to be surrounded by innumerable large and small globular urates. *b*, Shows the same preparation two hours later, after the globular urates have been washed away. *c*, Fourteen hours later. The remaining mass consisted of a soft gelatinous mass. Enlarged 140 times.

shown by a comparison of the analysis of different mineral waters. These show, for instance, that the Wiesbaden water contains twice as much bicarbonate of soda, fourteen times as much salt, and one-fifth of the amount of lime salts contained in Vichy water.

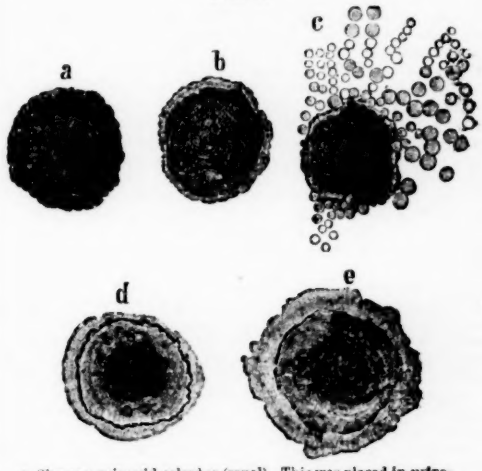
It has often been my experience that an acute attack of gout was completely cut short by drinking daily from three to five bottles of this water; almost invariably such an attack is markedly shortened, a fact easily explained by the mode of origin of the attack (*vide supra*). In order to banish fresh attacks both of acute and chronic gout one bottle of this water daily will usually suffice in the majority of cases.

After the reading of the above paper a discussion ensued on the uric acid diathesis, in the course of which were made the following

Remarks by Dr. MORDHORST.—With regard to the remarks made by Dr. von Noorden, I am glad to find that he also considers an over-abundant meat diet deleterious in cases of uric acid diathesis. In this he agrees with the extensive experience of English authorities on the subject. This cannot, however, be said of him when he recommends calcium carbonate in the treatment of urinary concretions. Of the numerous English authors who warn us against using carbonate of lime and calcareous mineral waters extensively in such cases I will only mention the following. Duckworth, whose well-known treatise on Gout has recently been translated into German, says on page 342 of the English edition verbatim: "Waters much impregnated with lime or iron are distinctly unsuitable or apt to provoke gout. Sulphate of lime in water is especially noxious to the gouty. Both calcic and ferruginous salts tend to check elimination of uric acid and so are badly borne by the gouty." Thin[4] is of opinion that indulgence in waters containing large quantities of lime salts tends to predispose to gout.

Moore[5] points out that cerebral apoplexy, calcification of the aortic valves, and arterio-sclerosis are often the cause of sudden death in gouty patients. German authorities also participate in these views. Posner says[6]: "I have arrived at the definite conclusion, not experimentally, but by clinical

FIG. 9.



a, Shows a uric acid calculus (renal). This was placed in urine which had become alkaline after the use of Wiesbaden water. *b*, Shows it one hour later. *c*, After two hours more. *d*, The same, the globular urates having been washed away. *e*, The same eight hours later. What remains of the stone is a soft transparent mass impregnated with pigment. Enlarged 140 times.

experience, that waters which are rich in soda are borne much better than those rich in lime salts" E. Pfeiffer advises that in cases where the Fachingen water, which is rich in lime salts, is not well borne a less calcareous water should be recommended. Liebreich gives preference to those waters which contain the smallest proportion of lime salts. My own experience fully bears out the observation that waters which are rich in lime salts very often give rise to digestive disturbances, especially loss of appetite and constipation. Finally, when I consider that the urine may often be neutral, nay, even alkaline, at certain periods of the day—for instance, after meals—and that it becomes so all the more readily the greater the dose of calcium carbonate taken, I fail to see the advantage of treating uric acid concretions with carbonate of lime; for as soon as the neutral or alkaline tide in the urine sets in a turbidity due to phosphates and carbonates of lime is observed. What may be the consequences of this is shown by the analyses of 200

[4] Brit. Med. Jour., vol. ii., 1891, p. 31.
[5] St. Bartholomew's Hospital Reports, vol. xxiv., 1888, p. 217.
[6] Zur Therapie des Harnsäureüberschusses (Berliner Klinische Wochenschrift).

vesical calculi made by Kakula.[7] Nearly all these calculi consisted in the main of phosphates and carbonates of lime.

Finally, I would make a few remarks on Dr. Rosenfeld's fundamental rules for the treatment of uric acid diathesis. Rüdel was the first to draw attention to the solvent action on free uric acid possessed by solutions of urea. His statement, however, that of all the constituents of urine none possess this power, both in watery solutions and in urine, to such a degree as urea does is a direct contradiction to both Fürst's observations and my own. Fürst found that 100 c.cm. of a 0·5 per cent. solution of sodium bicarbonate dissolved 0·16 gramme; I found that 100 c.cm. of a 0·7 per cent. solution dissolved 0·2 gramme of uric acid. That is far more than a solution of urea will dissolve. A 0·7 per cent. solution of neutral phosphate or carbonate of soda has an even greater solvent action. Such being the case, there can be no advantage in administering urea internally with a view to increasing the solving power of the urine on uric acid when this object may be attained with far more certainty by means of sodium bicarbonate. Another ground for the use of urea, which, so far as I know, I was the first[8] to point out, is the property of urea of retarding or preventing the conversion of the urates in the urine into uric acid and sodium. In every solution of urates which does not contain urea the urates are immediately decomposed as soon as the solution is rendered acid by the addition of some acid. If urea be added to the original alkaline solution this decomposition is retarded and partly prevented, even though the solution be rendered decidedly acid. This would, I presume, be a reason for recommending urea to counteract the formation of uric acid concretions; the idea is, after all, rational. Nevertheless, I have not been able nor can I now bring myself to re-introduce into the organism one of its waste products. Rosenfeld has the merit of being the first to introduce urea and ammonium salts as a treatment for concretion. This merit would be all the greater should it be proved after several years' experience that these substances are in no way harmful to the organism and do not accelerate the appearance of uræmic symptoms so common in these cases, where the kidneys are mostly the seat of secondary inflammation. In his papers on the behaviour of ammonia salts in the animal organism Professor Rumpf has reported that ammonium carbonate when retained in the body for any length of time may lead to symptoms of poisoning. But why should we resort to substances whose harmlessness cannot but be doubtful when the normal urine points out to us what direction we should take in order to prevent the formation of concretions? Normal urine is by far less acid than that of people suffering from concretions. The morning urine and that passed during digestion may be neutral, nay, even alkaline, provided meat has not entered too largely into the diet. It is the excess of bisodium phosphate over the monosodium phosphate in the urine which renders it neutral or alkaline. If sufficient quantities of sodium bicarbonate are administered we have it in our power to render even the most acid urine alkaline. Why do we not do so then? Because as soon as the urine becomes alkaline there is a precipitation of phosphate and carbonate of lime which may be deposited on any concretion already existing in the kidneys, renal pelvis, or bladder, and so may assist a rapid increase in their size. This can surely be the sole reason why von Noorden does not consider a long-continued alkalisation of the urine advisable. No other reasons can be brought forward. Several pupils of Stadelmann took daily doses of from 20 to 30 grammes (from 5 to 7½ drachms) of bicarbonate of soda or acetate for six weeks or longer. During the whole of this period the urine was alkaline, but no ill-effects were observed. Diarrhœa occurred only after very large doses, but ceased the moment the dose was reduced. The examination of the urine showed an excessive elimination of sodium chloride, proving that too much of this salt was being removed from the organism. This latter result was also obtained by Kleine[9] and Hartnack in their experiments, and they tried to explain it by the combination of the free hydrochloric acid in the stomach with the sodium. When it is desirable to administer large doses of bicarbonate of soda it is necessary to combine with them considerable doses of sodium chloride. Sodium chloride, like other neutral salts, has, in addition, the property of retarding the precipitation of uric acid crystals, a property which cannot be underrated in the treatment of uric acid concretions, as was first pointed out by Sir William Roberts. Large quantities of water tend to remove a great deal of acidity from the tissues, and also reduce the acidity of the urine; it is, therefore, well to recommend some mineral water which contains as much sodium bicarbonate, sodium chloride, and other neutral salts as possible. If, in addition, it contains only small traces of lime salts, and if no other beverage containing lime salts is taken at the same time, the urine thus made alkaline by copious use of such a water will, as a rule,[10] contain no deposit of phosphates. This, at least, is found to be so after using the Wiesbaden water. Other mineral waters, such as those of Fachingen, Bilin, Vichy, and Vals, do not possess this desirable advantage; the former contain too little sodium bicarbonate, all contain too little sodium chloride and other neutral salts, and far too much lime salts. As soon as one succeeds in rendering a slightly acid urine alkaline, or even only neutral, by taking large quantities of these waters, an immediate precipitation of the much dreaded phosphates occurs, whereas, as before mentioned, a copious use of Wiesbaden water produces absolutely no sediment.

Wiesbaden.

[7] Ueber Lithiasis der Harnblase in Böhmen (On Lithiasis of the Bladder in Bohemia). Aus der Dr. K. K. Böhmischen Chirurgischen Klinik des Herrn Professor Dr. K. Meydl in Prag. Wien: Verlag von Jos. Safar, 1894.

[8] Ueber die Bedingungen für die Entstehung Harnsauerer Sedimente (On the Conditions leading to Sediments containing Uric Acid): Munchener Medicinische Wochenschrift, No. 11, 1896.

[9] Ueber die Beeinflussung der Stoffwechselwirkungen des Chloralhydrats durch Kohlensaueres Natrium (On the Influence of Carbonate of Soda on the Metabolic Changes produced by Chloral Hydrate). Inaugural Dissertation, Halle-am-Saale, 1895.

[10] In young people, however, and in people who have little physical exercise or suffer from constipation, one not unfrequently finds some turbidity due to lime salts in the alkaline urine.

RESILIENT STRICTURE OF THE URETHRA AND ITS TREATMENT.

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STRICTURE of the urethra is one of those ailments for which many methods of treatment have been suggested. Some of these are specially applicable for certain varieties—for example, in slight and early cases gradual dilatation is usually adopted; in cartilaginous stricture with fistulæ, external urethrotomy, and in cicatricial stricture near the meatus internal urethrotomy, while very frequently social reasons on the part of the patient and individual preference on the part of the surgeon determine the choice rather than the certainty that one method will give better results than another. In most cases whatever method be ultimately decided on one can confidently anticipate a considerable amount of relief from the distressing symptoms; but there are always certain varieties which are liable to lead to disappointment, and of all these, resilient stricture is perhaps the most annoying to both surgeon and patient. This form frequently comes on in comparatively young men, is very irritable, and associated with spasm, and although of small dimensions—forming, indeed, a mere ring round the urethra—often leads to complete retention, and presents considerable difficulties to the introduction of even the smallest instrument. When, however, an instrument has once been passed it is surprising with what ease larger instruments, even up to a No. 12 or a No. 13, may be introduced, and the patient goes away charmed with the speedy relief of all his discomforts. Unfortunately, in almost every case the result is the same—re-contraction takes place, and the patient returns shortly in the same state as before, whatever method of treatment may have been adopted.

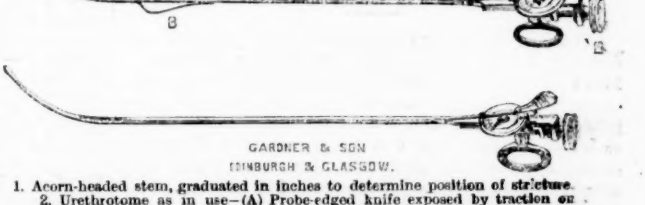
The only two methods which in my experience have attained somewhat better results are those of Holt and Maisonneuve. These might be described as rough but effectual, and I was thus led to consider the special features of this form of stricture and wherein lay the difficulties of its treatment. Now, what strikes one most is the ease of dilatation and the rapidity of re-contraction, and in these respects it may be said to resemble very closely an india-rubber ring. One knows how easily such a ring can be dilated up to any size short of rupture, but how at once, on the removal of the dilating instrument, it returns to its

original dimensions; by analogy, therefore, gradual dilatation is evidently inapplicable to the treatment of this variety of stricture, but, on the other hand, if by any means one can divide such a ring it at once ceases to act. So long, therefore, as it remains whole it will contract concentrically; but divide it and any contractile power it possesses will rather tend to draw the cut ends apart, and so long as it remains severed it can never act as a constricting agent. Turning again to the resilient stricture, one has to consider what is the best method of severing the constricting band. Two methods at once suggest themselves. While gradual dilatation is useless, sudden dilation up to, say, No. 18, English scale, will tend to rupture the band, and of this method Holt's is the best example, not employed as usually recommended, by passing one dilator, followed by another of a larger size, but by dilating suddenly by means of a large dilator. This, though effective for the time being, is rough surgery, and does away with what Holt described as an essential feature of his method—namely, that the mucous membrane should remain intact, the submucous layer in which is situated the stricture being alone affected. If employed as here suggested the mucous membrane is sure to be torn, and one knows that a lacerated wound does not heal kindly, causing as it does a large amount of cicatricial tissue to form, which will reproduce the stricture. This being unsatisfactory the next method is internal urethrotomy, but before considering how this can best be performed let us return to the idea of the indiarubber ring and see how cutting acts upon it. Take a sharp knife and attempt to divide it, and you will be surprised to find how difficult this is to accomplish so long as the ring is unstretched; put it on the stretch, however, and a mere touch with a sharp edge will cause it to fly asunder. It is evident, therefore, that in order to perform internal urethrotomy satisfactorily, stretching the stricture is an indispensable preliminary; any instrument with merely a small concealed knife, however sharp, will not be sufficient.

Now what are the various forms of apparatus at present available? These may be broadly divided into those which cut from before backwards and those from behind forwards, and for accuracy and precision most surgeons will admit that the latter are preferable. It is always easy to make out the anterior end of a stricture, and by means of an acorn-headed stem or by other methods one can generally determine its posterior limit and be thus informed as to its exact position, size, and dimensions; one can therefore be much more accurate and limited in a cutting operation in the latter case than in the former. The disadvantage, however, of nearly all the instruments as yet invented for cutting from behind forwards is that from their size they are unsuited for any except moderately-sized strictures, such as will admit a No. 4 to No. 6 bougie, and that they do not introduce the principle of stretching as well as cutting. There are exceptions to this rule, Otis' urethrotome being excellent, but only for large-sized strictures, and Heron Watson's, on the principle of a Syme's staff, which from the employment of a large knife has the disadvantage of making it difficult to regulate the depth of the incision. It was evident, therefore, that what was required was an instrument which could penetrate the smallest strictures, would introduce the principle of stretching so that the least touch of the knife would thoroughly divide the constriction, while at the same time the cutting edge should be as limited as possible.

Of all the instruments with which a practised hand is likely to be successful in penetrating a tight stricture, none in my experience surpasses Heron Watson's graduated steel probe-pointed bougies and catheters, and I therefore took one of these as the ideal from which my instrument was to be evolved. My first idea was to modify Heron Watson's urethrotome, for undoubtedly the shoulder, as in Syme's staff, is useful in determining the exact site of the stricture, but I then thought that in cases of double stricture the simpler probe-pointed instrument would be more easily introduced, and there is really no difficulty in localising the position of a constriction. The instrument I finally decided on may be briefly described as follows. It is of steel, probe-pointed, and gradually increasing in size up to No. 5, the curve being that of an ordinary bougie; the under side is hollow, but with a slit of about two inches in length, this opening commencing just where the curve joins the straight portion. In this tube is a wire B, flattened like a watch-spring, opposite the slit, and fastened to the instrument at its point by means of a hinge. This can be projected to any desired extent in the form of a loop through the slit, by means of a screw in the handle 'B. On the upper surface is a groove, which becomes deeper just past the slit, and holds a small concealed probe-edged knife similar to that employed by Otis or Maisonneuve A. This can be protruded by pulling on the wire to which it is attached, which runs in the groove 'A. The straight part of the instrument is graduated in inches commencing at the near end of the slit, so that one can be sure that both the cutting and stretching apparatus are behind the stricture. The accompanying drawing, however, will better explain the mechanism of the instrument than any detailed description.

The method of application is as follows. The patient having been prepared for operation by rest in bed, dieting, and the administration of salol, a few drops of castor oil medicated with 5 per cent. of eucalyptus oil and 10 per cent. of cocaine are to be injected so as to render the urethra insensitive and obviate the necessity for a general anæsthetic. The exact position of the stricture having been ascertained, the urethrotome is to be introduced through the stricture so that the mechanism is behind it in the dilated portion of the urethra, the graduated scale on the stem enabling one to do this with accuracy. Then by means of the screw in the handle one projects the dilating loop to any desired extent. This from its shape can now, by slowly withdrawing the instrument, be made to stretch the stricture to its fullest extent, and on projecting the knife the slightest touch of the cutting edge is sufficient to thoroughly divide the stricture, and one is surprised to find how the instrument at once becomes loose in the urethra; the knife being now replaced in its groove, the instrument is withdrawn with the loop still projecting, so that any other constriction can be at once detected and divided. The operation is practically painless, the bleeding insignificant, and without difficulty graduated bougies of the full stretched capacity of the urethra, generally up to No. 18 or No. 20, can be at once introduced. The further treatment of the case can be carried out according to the individual views of the operator. As a general rule I prefer to tie in a large sized gum elastic catheter for three or four days, but I have also passed a catheter at regular intervals, and even allowed the patient to pass urine as required, with only in one instance urethral fever supervening.



1. Acorn-headed stem, graduated in inches to determine position of stricture. 2. Urethrotome as in use—(A) Probe-edged knife exposed by traction on handle 'A; (B) watch-spring loop, projected by screw at 'B (extent of projection shown at handle). 3. Urethrotome with mechanism concealed, as when introduced. Graduated in inches on shaft or near side of mechanism so as to be certain of being beyond the stricture. (The numbers are counted from above downwards.)

The results of this method of treatment have been eminently satisfactory. I usually pass a large instrument within a fortnight of the operation and again after six weeks, as I am sure that in such cases the frequent passage of instruments only tends to set up irritation. In favourable cases I have been able to pass a No. 15 six months after the operation, no instrument except on the occasions I have already mentioned having been passed in the interval.

In this connexion there is one point in the treatment of stricture which I do not think has been sufficiently emphasised, and that is that whatever be the form we have to deal with or the method employed it is necessary to dilate the constriction up to the full stretched capacity of the urethra.

In any case the stricture is sure to quickly re contract two or three sizes below its dilatation, so that if one is content to stop at No. 12, which may be taken as the usual unstretched capacity of the urethra, a rapid re-contraction takes place down to No. 9; but as No. 9 is below the normal capacity, force is required to expel the urine, posterior dilatation and irritation at the seat of stricture follow, and further constriction occurs; while if one dilates the urethra, say, up to No. 18, the rapid re-contraction narrows the lumen only to No. 15 and the urethra thus remains undilated and unirritated by the passage of urine, and further contraction is slow and very gradual.

Were I to have another instrument constructed there are various points in regard to which I think improvements might be made. First, I think it worthy of consideration whether a shoulder, as in Syme's staff, might not be an advantage, so as to rapidly indicate the position of the stricture; this, of course, would be placed at the proximal end of the dilating mechanism. Secondly, it might be advisable to reverse the positions of the dilator and knife, as it seems to be generally considered preferable to cut on the floor of the urethra rather than on the roof. Thirdly, the dilating mechanism is capable of improvement. It would be better if it was fixed, say, by parallel bars, as in a resistant stricture it gives somewhat, and then does not put the part as fully on the stretch as might be desired. And, lastly, although the probe on the edge of the knife is theoretically perfect, I think I have got better results with a knife without any blunt edge, its small size especially, when part of the cutting edge is occupied by the probe, resulting in a firm stricture not being thoroughly divided by the first attempt and requiring re-application.

I have now employed this instrument in about twenty cases of strictures in all parts of the urethra without any complication (except in one case, when slight shivering followed the first passage of urine), and with uniformly excellent results. I can, therefore, with the utmost confidence recommend it to the attention of the profession.

Edinburgh.

ON THE KNEE-JERKS IN DIABETES MELLITUS.

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IT has been known for many years that the knee-jerks may disappear in diabetes mellitus.[1] In a paper published in 1892 I recorded the condition of the knee-jerks in fifty cases of diabetes mellitus; in one-half of the cases both the knee-jerks were absent.[2] I pointed out that previous statistics had varied considerably and that much difference of opinion existed respecting the prognostic value of this sign. Thus Bouchard found the knee jerks absent in 36·9 per cent. of his cases, Auerbach[3] in from 35 to 40 per cent., Maschka[4] in 30·6 per cent., and Eichhorst[5] in 20·9 per cent. Soon afterwards Dr. Karl Grube, of Neuenahr, recorded[6] the results of the examination of the knee-jerks in a series of cases of diabetes; and an abstract of his paper appeared in THE LANCET.[7] Grube pointed out that in his cases (131 in number) the knee-jerks were absent in 7·6 per cent. only. In a second paper[8] Grube adds other cases, and states that in the combined series the knee-jerks were absent in 13·5 per cent.

The great difference between 7·6 per cent. (Grube) and my own results, 50 per cent., caused me to examine carefully the condition of the knee-jerks in a second series of cases in order to find out, if possible, the reason for this remarkable discrepancy in statistics. My results in the second series of 50 cases were, however, practically the same—the knee-jerks were both absent in 24, both were present in 23 and one was absent and one present in 3 cases. I may point out that the cases have been most carefully examined. In taking the reflexes the skin over the patellar ligament has been well exposed and the ligament struck directly, no clothing intervening. If no knee-jerk has been obtained in the ordinary way then Jendrassik's and Buzzard's methods have always been employed before the knee-jerks have been recorded as absent. (The patient is seated on a chair with his feet well in contact with the floor, and the knees bent at an angle just a little more than a right angle. He is made to look upwards, to link his fingers together and to pull tightly. The observer places one hand on the rectus femoris muscle and strikes the patellar ligament with a percussion hammer or stethoscope. If the slightest knee jerk be present, a contraction of the rectus muscle will be felt.)[9] In many cases the knee-jerks appeared to be absent when an examination was made in the ordinary manner, but by the above method they were just obtained; and these cases, however feeble the reflexes, were classed amongst those in which the knee jerks were present. Most of the cases examined were in-patients at the Manchester Royal Infirmary; they were examined repeatedly, often for weeks or months, and were then under the most favourable conditions for examination. Hence I feel justified in believing that my figures represent fairly accurately the condition of the knee-jerks amongst hospital patients who suffer from diabetes mellitus in Manchester. The following are my results in 100 cases:—Both knee-jerks were lost in 49; one knee-jerk was present and one absent in 6; and both knee jerks were present in 45; total, 100. One of the cases in which the knee-jerks were present came under observation for a second time after an interval of eighteen months and both knee-jerks were then absent. If this be added to the 49 cases, we have then the knee jerks absent in 50 per cent. of the cases.

As above stated, Grube found the knee-jerks absent in only 7·6 per cent. of his first series of cases. What is the cause of this remarkable difference in statistics? I know Dr. Karl Grube to be such a careful and reliable observer that I can place the greatest confidence in his observations and, of course, am convinced that his statistics are correct with respect to the cases which he has examined. But I feel justified in believing my own statistics to be also accurate. The difference in results is interesting, and I believe the following to be the explanation. The 100 cases on which I have based my statistics have been almost all hospital patients in Manchester. They have been suffering mostly from a very severe form of the disease, generally with marked wasting. In a large proportion of cases the disease has been in a very advanced condition, and often the observations have been continued practically up to the last. (In 26 out of the 100 cases up to the last few days, and in a large number of cases up to the last few weeks of life.) The majority of the patients have been poor, hard-working people, and amongst the 100 cases there were very few examples of the mild form of the disease, which is met with in stout or gouty old people. As regards age, 81 of the 100 cases were under the age of fifty years. On the other hand, Dr. Karl Grube states[10] that the majority of his patients were over the age of fifty years, and it is well known that the severity of the disease is much less in patients over that age. Then, again, Dr. Grube is engaged in private consulting practice at Neuenahr—a small town in West Germany, much frequented by diabetic patients on account of its alkaline mineral waters, which are regarded as being of great value in diabetes, especially in the diabetes of gouty persons. Also his patients have probably been in a better social position and have lived under more favourable conditions of life than the hospital patients on whom my observations were made. Probably a large proportion of his cases would not be in the very last stage of the disease, otherwise they would not have been allowed to travel to Neuenahr. These I believe to be the causes of the difference of our results. I think it is a point of some interest that the knee jerks should be absent so much more frequently amongst diabetic hospital patients, who suffer, as a rule, from the disease in its severest form. Eichhorst[11] has previously drawn attention to a difference between his hospital and private patients, the knee-jerks being absent in 42·9 per cent. of the former and 16·7 per cent. of the latter; but his observations were based on 36 private cases and only 7 hospital patients

[1] This was first pointed out by Bouchard, Le Progrès Médical, No. 41 1884.
[2] Medical Chronicle, November, 1892. This article was afterwards included in the book on "Peripheral Neuritis," by Dr. J. Ross and Dr. J. S. Bury.
[3] Deutsches Archiv für Klinische Medicin, 1887, Band xli., p. 484.
[4] Wiener Medicinische Presse, No. 3, 1885.
[5] Virchow's Archiv, Band cxxvii., p. 1.
[6] Neurologisches Centralblatt, No. 22, 1893.
[7] THE LANCET, March 17th, 1894, p. 689.
[8] Deutsche Medicinische Wochenschrift, June 6th, 1895.
[9] Buzzard, THE LANCET, Jan. 28th, 1888.
[10] Deutsche Medicinische Wochenschrift, June 6th, 1895.
[11] Loc. cit., p. 1.

In the earliest stage of diabetes, even in its most severe form, I believe the knee-jerks would be found present as a rule; but in these cases they are very often lost later. I have frequently observed that in those severe cases in which the knee-jerks have been present when first examined, they have finally disappeared, if the cases have been under observation for a long period. Thus in the 100 cases which I have examined the knee-jerks, as above stated, were lost in 50 per cent., but in many cases I was not able to continue my observations up to the last. In 26 cases, however, in which I examined the knee-jerks up to the last day or last few days of life, I found they were both absent in 19 (= 73 per cent.), and present in 7; but in 4 out of these 7 cases they were exceedingly feeble. In the majority of cases I have found the knee-jerks to be absent during diabetic coma. Thus in 21 cases of diabetic coma which have come under my observation in Manchester the knee-jerks were absent in 18, but in 3 cases they were present (in 1 case half-an-hour before death, in another three hours before death, and in the third case at the commencement of coma). Generally the knee-jerks were absent for a long period before the onset of coma. In one case, however, they were present the day before the commencement of coma, but disappeared when the early symptoms of diabetic coma were observed. The following table (of 100 cases) shows that the knee-jerks are lost in a much greater proportion of cases under the age of thirty years than in cases over thirty years.

*Table Showing the Relation between the Presence or Absence of Knee-jerk and the Age at which Diabetes occurs.**

Between the ages of	Knee-jerks absent.	Knee-jerks present.	Remarks.
10 and 20 years ...	13	3	Under the age of 25 knee-jerks were lost in 81 per cent.
20 and 25 years ...	9	2	
25 and 30 years ...	8	4	—
Totals... ...	30	9	Under the age of 30 knee-jerks were lost in 76·9 per cent.
30 and 40 years ...	8	10	—
40 and 50 years ...	5	14	—
50 and 60 years ...	9	4	—
Over 60 years ...	3	8	—
Totals	25	36	Over the age of 30 knee-jerks were absent in 40·9 per cent.

* This table is based on another series of 100 cases.

As regards the cause of the loss of knee-jerks in diabetes, the frequent association of pain, numbness, muscular tenderness, and cramps points to an early peripheral neuritis;[12] and a few cases have been recorded in which well-marked typical motor and sensory symptoms of peripheral neuritis have been present;[13] also in a few cases examined pathologically parenchymatous neuritis of the peripheral nerves (branches of the anterior crural) has been found.[14] But frequently when the knee-jerks are absent there are no other indications of slight peripheral neuritis, and the peripheral nerves may be normal on pathological examination. I have examined the small peripheral nerves in three cases of diabetes mellitus in which the knee-jerks were absent—in two cases the branches of the anterior crural in the thigh, in the third case branches of the anterior tibial. In all three cases the nerve fibres appeared normal. I have found slight changes in the posterior columns of the spinal cord in two cases of diabetes.[15] Similar changes have also been recorded by Sandmeyer,[16] Leyden,[17] and Minor.[18] In one of these two cases the knee-jerks were absent, the peripheral nerves examined (branches of the anterior crural) were normal, but changes were found in the posterior columns extending down to the upper lumbar region. In other cases I have found the spinal cord normal, and many cases have also been recorded in which the knee-jerks have been absent, and yet the cord has been normal on pathological examination. Nonne has reported a case of diabetes complicated with progressive muscular atrophy.[19] Pathological examination revealed chronic anterior poliomyelitis. The nerve cells and fibres of the anterior horns of grey matter were markedly degenerated at all parts of the cord: at the latter stage of disease the knee-jerks were absent. In one case in which the knee-jerks were absent during life, I found both the smallest peripheral nerves (branches of anterior crural) and the spinal cord normal on pathological examination, and others have had similar results.[20]

The changes which have been found in the cases just mentioned—i.e., changes either in the spinal cord or peripheral nerves—have been sufficient to explain the loss of knee-jerks in these cases. But in other cases, in which both cord and small peripheral nerve present no recognisable changes histologically (and probably these are more numerous than the former), some other explanation is needed. Either changes (not yet described) are present in the most minute nerve fibres and motor end-plates or the loss of the knee-jerk is due to some functional change in the spinal cord, peripheral nerves, or muscles. Marinesco[21] has recently recorded a case of diabetes in which both knee-jerks were absent, but after an attack of hemiplegia the knee-jerk returned on the paralysed side, the case being analogous to that of tabes reported by Dr. Hughlings Jackson and Dr. Taylor, in which, after an attack of hemiplegia, the knee-jerk returned on the paralysed side.

Conclusions.—1. In Manchester, amongst hospital patients suffering from diabetes mellitus, the knee-jerks are lost in from 49 to 50 per cent. of the cases. These patients mostly suffer from a severe form of the disease; 81 per cent. are under the age of fifty years; frequently there is great emaciation, and the cases are often at an advanced stage. 2. In private practice, amongst patients who live under more favourable conditions, and in the milder forms of the disease occurring in gouty or well-nourished people over the age of fifty years, I believe the proportion of cases in which the knee-jerks are absent will be much less (knee-jerks were absent in 16·7 per cent. of private patients—Eichhorst; knee-jerks were absent in only 7·6 per cent.—Grube of Neuenahr—the patients being mostly over fifty years). 3. The knee-jerks when present at an earlier period are frequently lost or diminished later. During the last few days of life the knee-jerks are lost in 73 per cent. of hospital diabetic patients in Manchester. 4. They were lost in eighteen out of twenty-one cases of diabetic coma (86 per cent.). 5. Amongst diabetic hospital patients the knee-jerks are more frequently lost under the age of thirty years than over thirty. 6. Since the course of diabetes mellitus depends on so many circumstances, it is somewhat difficult to estimate the exact prognostic value of one symptom, which is occasionally absent even up to the last; but the above facts and considerations seem to show clearly that the loss of knee-jerks is more frequently associated with unfavourable prognostic indications.

Manchester.

[12] Buzzard: THE LANCET, Jan. 28th, 1888.

[13] For summary of cases see Medical Chronicle, loc. cit., also Buzzard, Brit. Med Jour., June 21st, 1890.

[14] Pryce: THE LANCET, July 2nd, 1887, and Brain, 1893, p. 416; Eichhorst, loc. cit.

[15] Brit. Med. Jour., Feb. 24th, 1894.

[16] Sandmeyer: Deutsches Archiv für Klinische Medicin, Band l.

[17] Leyden: Society Reports, Wiener Medicinische Wochenschrift, No. 21, 1893, p. 925.

[18] Minor: Archives de Neurologie, tome xvii., p. 391.

[19] Nonne: Berliner Klinische Wochenschrift, March 9th, 1896.

[20] Nonne, quoted by Eichhorst, loc. cit.

[21] Marinesco: Comptes Rendus de la Société de Biologie, 1895, p. 691.

CASE OF PYO-SALPINX AND OTHER CASES IN WHICH INJECTION OF SALINE SOLUTION WAS USED.

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CASE 1.—A woman, aged thirty-two years, married, was admitted into the medical wards of the Newcastle Infirmary, under Dr. Philipson. Shortly after her admission the case was diagnosed as pyo-salpinx, and she was transferred to my ward for operation. She was in a very low condition, with high temperature, and nocturnal delirium. The operation

was performed on Feb. 14th, 1896. The abdomen was opened by an incision through the substance of the left rectus muscle. The usual sausage-shaped tumour was found, tense, and freely adherent. The adhesions bled freely, as they were separated, and the cyst burst, discharging very fœtid pus into the sponges placed in the pelvis. After the removal of the left appendage the right was found in the same condition and was removed. It also burst and discharged similar fœtid pus. As contamination of the peritoneum could not be avoided, it was well sluiced with 1 in 10 000 sublimate solution, and carefully cleansed, a glass drainage tube being left after securing all bleeding points. The patient bore the operation well. An hour afterwards three ounces of blood were drawn off through the tube, but after that nothing of consequence came away. Next morning she was apparently going on well, but twenty-four hours after the operation she suddenly collapsed, with an almost imperceptible pulse; the face was pallid and shrunken, and there was every appearance of impending death. Two drachms of an almost colourless fluid were drawn off through the tube, thus proving the absence of internal bleeding. The median basilic vein was promptly opened, and three pints of normal saline solution at a temperature of 112° F. were slowly thrown in by gravitation. The effect was immediate, the pulse became steady and easily counted (150). A quarter of an hour after the injection she vomited some bile-stained fluid; this was followed in half an hour by a well-marked rigor, with sweating. The temperature was 102° F., rising in a short time to 104°. Four hours afterwards the pulse had fallen to 115, the patient had greatly improved, and she said that new life had been put into her. The improvement continued, but her recovery was retarded by the abundant discharge of pus of the same fœtid character as that in the tubes at the operation. The pelvis was repeatedly washed out daily with Condy's fluid, but for some days without effect, when diluted sulphurous acid was tried, yet still without effect; but the fœtor quickly yielded to crystallised iodoform thrown down the tube, which was soon afterwards withdrawn, as the discharge ceased, and recovery went on slowly but without further drawback.

It is worth noting that the loss of blood at the operation was not excessive, and did not continue long afterwards. The collapse on the following day seems to have been due to loss of vaso-motor influence following on the abdominal operation. The patient was, in fact, bleeding to death into the vessels of her own abdominal viscera. The saline injection kept the circulation going until it was able to draw upon the blood temporarily lying in those vessels, and restore it to the general circulation.

The injection of saline solution has been resorted to rather freely at the Newcastle Infirmary, and in most cases with admirable effect. The two following cases are examples taken from several others in my own wards.

CASE 2.—A woman was admitted with a large collection of pus in the knee-joint, following white leg after confinement. The joint was incised in two or three places, washed out, and drained, with relief, but a day or two afterwards she was apparently sinking. After injection she quickly rallied, and for a time improved, but the joint was disorganised and she began to lose ground. Amputation high in the thigh was performed, when she nearly died on the table; but injection of the saline solution, which had been got ready in anticipation, brought her round, and she rapidly recovered.

CASE 3.—A man aged fifty years had his hand caught in machinery and was carried five times round a revolving shaft. He was admitted with fracture of several ribs on the left side, fracture of the sternum, and fracture of nearly every rib on the right side, so that the right side of the chest sank in with each inspiration. There was extensive subcutaneous emphysema on the right side, and the right arm was smashed, so as to require amputation through the humerus. There was extreme pallor and depression, but the pulse was fairly good, so I ventured to amputate; but we had saline solution ready, and before closing the stump forty ounces were poured into the open end of one of the veins, with instant good effect. No bandage or plaster was applied to the chest. A month after the accident he was nearly well, and ultimately recovered perfectly.

I am indebted for the notes of the cases to my late house surgeon, Dr. R. W. Morgan.

Newcastle-on-Tyne.

THE THERAPEUTICAL ASPECTS OF TALKING, SHOUTING, SINGING, LAUGHING, CRYING, SIGHING, AND YAWNING.

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THE respiratory movements have wide-reaching effects. They not only lead to the flow of air to and from the lungs, but they profoundly influence the circulation of the blood and lymph; they also affect the functions of the abdominal and pelvic viscera by rhythmically compressing and dislocating them. Now, these movements are liable to constant modification in the physiological acts of talking, shouting, singing, laughing, crying, sighing, and yawning (as also in the occasional and semi-pathological acts of sneezing, coughing, vomiting, and hiccoughing), and it therefore follows that these acts are more far-reaching in their effects than would at first sight appear, and hence are worthy of our careful study. This will the more readily be granted when it is added that they affect the body, not only by modifying the respiratory movements and thus producing the effects already mentioned, but by involving the expenditure of a considerable amount of neuro-muscular energy, and by inducing definite psychic phenomena which themselves have their physical accompaniments. In brief, any one of these acts—e.g., singing—causes (*a*) a modification in the circulation of blood and lymph; (*b*) an alteration in the functions of the abdominal and pelvic viscera; and further leads to (*c*) a considerable discharge of nervous and muscular energy; and to (*d*) numerous changes (muscular, glandular, and other) throughout the body in consequence of the attendant psychic change.

Seeing, then, how far-reaching are the effects of these several acts, and remembering how large a part they play in normal life, we may safely conclude that they influence the functions of the body beneficially, and that an undue interference with them is injurious. One is apt to forget how strong is the instinct to shout and sing, laugh and cry. It is especially noticeable in the savage and in the child. If these instincts are unduly repressed in the child he is sure to suffer. Crying should certainly be restrained within limits, but there can be no doubt that it is primarily physiological, not only favouring the proper expansion of the lungs and accelerating the circulation, but deadening the effects of pain and relieving nerve tension (especially in woman). Rosbach thinks it not improbable that many evils which manifest themselves in later life, such as chlorosis, contracted chest, and the phthisical habit, "may take their origin in the practice of mothers to stop their infants from screaming by soothing them to sleep in their arms or by stupefying rocking in the cradle."[1] It is well known that children show a strong instinct to chatter and sing the first thing in the morning, and it should be allowed full vent as far as is practicable. The shouting which young people indulge in during their play is quite remarkable and is manifestly physiological. The same tendency to shout is observed in young adults, especially among the poorer classes in holiday time. Though from the physiological point of view justifiable, and even beneficial, the noises they make are certainly not always pleasing, especially to the sensitive nerves of the cultured, amongst whom this instinct is consequently suppressed, though whether altogether to the gain of the individual is questionable.

The various acts referred to will now be considered individually.

Talking.—As regards the psychic aspect of talking, thought becomes much more vivid if it finds expression, whether in speech, writing, music, or artistic production, than if it remains unexpressed. The physical effects of thought are more pronounced in talking than in writing. The cortical nervous discharges underlying it send a stream of energy towards the muscles involved in speech and gesture, and both voice and gesture can be modified to convey subtle shades of thought and feeling which cannot find expression in writing. The very expression of these refinements enhances the vividness and intensity of mentation. Talking is for this reason stimulating, and its influence in

[1] Von Ziemssen's General Therapeutics, vol. iii., p. 581.

this respect is in a measure proportional to the gesture accompanying it. Few things are more calculated to stimulate the body, to rouse it from lethargy, than "animated" conversation. In talking, as in laughing, shouting, singing, and crying, inspiration is short, while expiration is prolonged, the exit of air being checked partly by obstruction in the glottis and partly, perhaps, by the action of the inspiratory muscles. The actual amount of work done in talking is far more than might at first sight be supposed, and should always be taken into account in reckoning up the quantity of exercise taken during the day. The amount of talking done by barristers, politicians, and others enables them to dispense largely with exercise as ordinarily understood; for not only do they in this way expend a considerable amount of muscular energy, but they experience the manifold advantages of active respiratory movements continued for long periods together; indeed, I believe talking to be distinctly conducive to longevity. That talking involves a considerable expenditure of energy is shown by the exhaustion which it induces in those who are nervously run down. Such are often greatly exhausted, even after a moderate day's talking. This exhaustion is due to mental as well as to muscular expenditure; indeed, in the very neurasthenic the bare process of thought may be an effort and the mere effort to think may alone cause exhaustion; and if such is the case, how much more likely is the putting of thought into speech to do so, seeing that, apart from the muscular expenditure involved in speech, thought is so much more intense when spoken than when unexpressed. Talking is a beneficial exercise in heart disease, especially in those forms in which the blood tends to be dammed back upon the lungs. The good effect is here doubtless due to the increased amplitude of the respiratory movements and to the help thus afforded to the pulmonary circulation. It is for this reason that I always encourage talking in those suffering from passive engorgement of the lungs. "The breathlessness due to dilatation of the heart," observes Sir William Broadbent, "is often relieved by exercise of the voice. I have met with numerous instances in which a clergyman has climbed into the pulpit with the utmost difficulty, and has not only preached a sermon comfortably, but has been all the better for it."[2] The good result, I take it, in these cases is attributable to the deep inspirations required by the loud voice necessary to fill a large building.

Shouting.—The psychic accompaniment of shouting is essentially emotional. Emotion is not only expressed, but sustained, and, indeed, intensified by it. Thus the shouting of children at play, itself the outcome of exuberant emotion and pent-up neuro-muscular energy, enhances the emotional outburst. In like manner the hurrahs of an applauding multitude, the cry of the huntsman, the war-whoop of the savage, the yells of an attacking force, may so exalt emotionality as to induce a condition bordering on ecstacy. A further effect of shouting is to dull sensibility, the emotional exaltation which it provokes, and the voluminous discharge of neuro-muscular energy accompanying it, inducing a corresponding depression in the sensorial sphere. It is on this principle that groaning, and still more the shriek of acute agony, bring relief. The mere sound produces a similar effect by violently energising the acoustic centres.[3] The shouting and gesticulation which accompany an outburst of passion act physiologically by relieving nerve tension; and, indeed, as Hughlings Jackson has suggested, swearing may not be without its physiological justification. Passionate outbursts are generally succeeded by a period of good behaviour, and, it may be, improved health. One frequently notices this in children, and I have also observed it in the adult. It is possible that the outbursts of irritability observed in disease, as, for instance, in gout, have their physiological as well as their pathological aspect. As regards the modifications in the respiratory movements caused by shouting the important practical point to notice is that they are increased in depth. Hence shouting favours the development of the lungs and accelerates the circulation of blood and lymph.

Singing.—Singing, like shouting, is more emotional than intellectual, the degree of emotion called forth depending upon the extent to which the individual throws himself into the spirit of the song. The nature of the attendant emotion varies of course considerably, and there is a corresponding variability in its physical correlatives: if the theme of the song be joyous the proper rendering of it is highly stimulating. In singing there is a great disproportion between inspiration and expiration, the former being much the shorter. Moreover, during these long expirations the glottis is constricted, and the free egress of air being thus prevented intra-pulmonary air tension rises and frequently the flow of blood to and from the right heart is impeded, but this temporary retardation of the blood-flow may be more than compounded for by the acceleration which takes place during the succeeding deep inspiration. The obstruction of the glottis increases as the scale is ascended, and seeing that the expiratory force employed in the delivery of the upper notes is, for the most part, greater than that employed in the production of the lower, it follows that high singing, especially if *fortissimo*, impedes the circulation more than low singing. From the medical standpoint singing is a most important exercise, both by virtue of its influence on the emotions, on the respiratory movements, and on the development of the lungs. The good average health enjoyed by professional singers is in large measure attributable to the mere exercise of their calling.[4] Such therapeutic importance do I attach to singing that I recommend it wherever opportunity affords. It is especially useful in defective chest development and in chronic heart disease. Oertel speaks enthusiastically of the beneficial influence of singing on the general health, and especially on the lungs, and he refers to the fact that almost all eminent singing masters can tell of serious cases of lung disease which have been cured by their method of singing. He thinks there can be no doubt that weak chests of various kinds can be greatly improved by it, and he would even appear to include phthisis. "In consequence of the reports sent in from various quarters on the healthy influence of singing on the respiration and circulation and on the strengthening and nutrition of the lung, the practice of singing has been introduced even into prisons in order to antagonise pulmonary consumption, which generally develops in a short time amongst the convicts. The method of singing devised by Fried-Grell is especially adapted for our national schools and ought to be generally introduced, like gymnastics, from a sanitary point of view."[5]

Laughter.—The psychic accompaniment of laughter being joyous emotion, its effect is stimulating, and it has been truly said that the man who makes us laugh is a public benefactor. Its beneficial effect on the body is illustrated by the saying, "Laugh and grow fat." The expiratory act in laughter is greatly prolonged, and, the glottis being partly closed, intra-pulmonary tension is increased; and thus in excessive laughter there may be considerable impediment to the flow of blood through the lungs, as shown by the turgid head and neck. This disadvantage—for in most cases of heart disease it is a disadvantage—is far more than compensated for by other effects, foremost among which must be reckoned the deep inspirations which separate the individual paroxysms.

Crying.—In thinking of the term "crying" one must distinguish between the mere shedding of tears, and weeping accompanied by sobbing. In the one the effects are limited, while in the other the entire body may be convulsed. I have already referred to the beneficial effects of crying in children. The crying of the infant is peculiar. Expirations are prolonged sometimes for as much as half a minute, and are interrupted by short inspirations. During the expirations the glottis is contracted and the intra-pulmonary pressure rises considerably. Not only is the pulmonary circulation thereby greatly impeded, as shown by the swollen veins of the head and neck, but bronchial mucus, flatus, and other noxious matters are evacuated. The paroxysm is succeeded by rapid deep respirations, which restore the equilibrium of the circulation. Women likewise often derive benefit from "a good cry"—the profuse flow of tears lessens blood-pressure within the cranium; the voluminous discharge of nerve energy relieves nerve tension; the sobbing movements of respiration influence in a very decided and doubtless beneficial way the circulation and the movements of the abdomino-pelvic viscera; while the widespread contraction of the muscle system has probably also a good effect.

[2] THE LANCET, April 4th, 1891, p. 798.

[3] A famous quack extracts his patient's teeth to the blare of trumpets and the boom of the big drum.

[4] The splendid chest development of public singers is, of course, not entirely attributable to the constant exercise of the voice, since no one can attain a high excellence without having a good chest development in the first instance. It must also be observed that every singer who attains to fame is careful to lead a healthy life.

[5] Von Ziemssen's General Therapeutics, p. 582.

How pronounced are the dynamic effects induced by completely abandoning oneself to a fit of crying is shown by the exhaustion which it entails. It is partly through this exhaustion that crying induces sleep; we hear of "crying oneself to sleep," though this must be but a very crude explanation of the phenomenon. The tendency of women to cry should, of course, be kept within proper bounds, but certainly harm may result from its complete suppression, as Tennyson recognises in the line—

"She must weep or she will die."

It is said that women who are able to find relief in tears keep their youth longer than those who repress them. The internal cankering action "like a worm i' the bud" of pent-up emotion is not only a beautiful poetic conceit, but a profound physiological truth. In short, strong emotion should receive expression—"give sorrow words."

Sighing.—"A sigh is a deep thoracic respiration, with retraction of the abdomen."[6] The retraction of the abdominal muscles leads to a compression of the splanchnic veins. This compression is probably increased by slight descent of the diaphragm. The blood is thus pressed out of those veins into the right heart, and the flow into this chamber is further favoured by the deep inspiration which also aids the circulation through the lungs. Now Hill has pointed out[7] that the blood accumulates in the splanchnic veins in syncope, and that "a deep sigh is the first obvious sign of improvement." That the act of sighing in syncope has the effect maintained is shown by the observation of Stephen Hales. He noticed that the arterial blood-pressure in horses rises considerably on deep sighing and that the same effect is produced in dogs by firmly pressing the abdomen.[8] The sigh of syncope is comparatively rare. A much more common cause of sighing I believe to be shallow breathing, however induced. Thus sadness and a sense of weariness or boredom are wont to be attended by shallow breathing, and in all of them sighing is frequent. In consequence of this shallow breathing blood-aeration lags behind, and the blood tends to accumulate in the right heart and systemic veins. The sigh benefits by promoting the aeration of the blood and quickening the pulmonary circulation, and it is for similar reasons that sighing is apt to occur during a state of "breathless attention"—when the attention, i.e., is so strained that one forgets, as it were, to breathe adequately.

Yawning.—It is difficult to describe accurately this act. A deep and prolonged inspiration is taken through the mouth and nose, the mouth being widely opened and the nares dilated. The opening of the mouth is effected by a strong tonic contraction of the depressors of the lower jaw and by the extension of the head and consequent elevation of the upper jaw. At the same time the limbs and trunk are "stretched." There is, in short, a widespread tonic contraction of the muscle system. This continues and indeed reaches its climax during the expiratory portion of the act, the mouth being kept open till towards the end of it. The expiratory blast is directed solely through the mouth owing to the elevation of the soft palate, and the vocal cords approximate, a characteristic sound being produced in the larynx, while there is a peculiar contraction of the muscles at the back of the throat the nature of which I do not understand. There can be little doubt that one of the objects of yawning is the exercise of muscles which have been for a long time quiescent, and the acceleration of the blood and lymph flow which has in consequence of this quiescence become sluggish. Hence its frequency after one has remained for some time in the same position—e.g., when waking in the morning. Coöperating with this cause is sleepiness and the shallow breathing which it entails. This factor, as well as muscle-quiescence, is apt to attend the sense of boredom which one experiences in listening to a dull sermon. Hence it is that the bored individual is apt to yawn. As in the case of sighing, the deep breath which accompanies the act of yawning compensates for the shallow breathing which is so apt to excite it. I am unable to offer any explanation of the yawning—or, rather, gaping—which is induced by exhaustion from want of food. This mere gaping is, however, quite distinct from yawning, which is a much more complex phenomenon. Allied to yawning is a modification of the breathing which is apt to occur during sleep. A deep breath is taken more or less suddenly, and this is followed by a long-drawn-out expiration with probably closed glottis and a groaning sound. This kind of breathing has certainly some physiological import, but what it is I cannot say.

Wimpole-street, W.

[6] L. Hill: Journal of Physiology, vol. xv., p. 48.
[7] Loc. cit.
[8] Statist Essays (London, 1733), vol. ii., p. 33, referred to by L. Hill, op. cit.

AN UNUSUAL CASE OF PARALYSIS OF THE OCULAR MUSCLES.

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THE patient who was the subject of this unusual train of symptoms came to me first on Oct. 31st, 1894, complaining of headache, giddiness, and difficulty of vision, and was accompanied by her sister whose support was necessary to enable her to walk at all correctly. The history of her condition was that headache was the first evidence of any disorder and appeared just thirteen days before, being closely followed by giddiness, and that difficulty of vision was the last symptom to appear. The past history of the patient was practically without blemish, she not having had any serious or prolonged illness in her life. There was no evidence of gout, rheumatism, syphilis tuberculosis, or, indeed, of any dyscrasia, and the patient was not at any time either neurotic or hysterical. There was no history of any injury at all likely to give rise to such symptoms as the patient complained of. The family history of the patient was of the very soundest description, no bodily habit or tendency in any way prejudicial being transmitted, so far as could be found. There had not been any nervous disease in the family. When first seen, the patient, who was about thirty years of age, was, apart from the aforementioned symptoms, in perfect health, neither anæmic nor plethoric, although well nourished; and further she was of sober manner and quiet demeanour. She stated that her headaches were almost entirely frontal, not tending to one side more than the other, and that they generally began with pain in the eyes. They were, further, distinctly worse after using the eyes for a time, ceasing at night, but often being present on waking in the morning, more especially if she had been working at her employment—i.e., dressmaking—the previous night. The vertigo was of a general nature, and there was no inclination to fall to one side more than the other. The patient could stand well with the eyes closed, the feet together, and the hands raised high above the head. She could not "walk a line" at all well, and any effort to hold on to or grasp anything evidently increased the difficulty of the process, which seemed to indicate that visual effort was—in part at least—the cause of the deficiency. The visual disturbance appeared to be difficult to define as it tended in no very special direction but resulted, somehow, in confusion (the patient had never noticed that she saw objects doubled until, by the usual methods, it was pointed out to her). It was manifest, on examination, that there was a nearly complete paralysis of the external rectus muscle of the right eye, this muscle being unable to turn the eye outwards further than the middle line, there being, however, no convergent strabismus at this date. Diplopia was, of course, homonymous and was present even when an object was held 15° to the left of the middle line at 10 ft. distance. Ophthalmoscopic examination revealed neither error of refraction nor change in any degree of the fundus of either eye, and there was no evidence of internal ophthalmoplegia. The fields were normal both for colour and white light. The knee and other reflexes were examined, but no evidence of nervous affection was found in any part. Examination of the general organs proved to be entirely negative, and inquiry failed to elicit evidence of any functional inaccuracy or disorder; indeed, there appeared to be absolutely no signs, other than those before mentioned, of any disease. It seemed highly probable, then, that both headaches and vertigo were the results rather than the companion symptoms of the paralysis. A guarded prognosis was given, complete ocular rest was ordered, and the use for a prolonged period recommended of a mixture containing the iodide and bromide of potassium with nux vomica. As regards the course of the disease it was found to be moderately rapid, for on Nov. 14th the paralysis was complete, there being

considerable convergent strabismus. The headaches were now, on account doubtless of the cessation of visual effort, much less severe and less frequent, but the vertigo continued in much the same degree. On Dec. 26th the state of matters was entirely changed, for now the right eye had entirely regained its powers of movement, whereas the left external rectus muscle was entirely paralysed, there being marked left convergent strabismus. As the patient could give no account of the date on which the change had occurred, but thought that the right eye was still affected, it is probable that an overlapping, as it were, had taken place, the left eye beginning to be affected before the right was entirely well. The change and the rapidity of its occurrence seemed to justify the giving of a slightly more favourable prognosis, as it was considered probable that any paralysis from a grave lesion would hardly run such a course as this. The left eye ultimately completely recovered its powers of movement, &c., so that by the end of January, 1895, the patient was able to return to her regular work without any inconvenience. She was seen again in March, 1895, in perfect health, and in this state she remained over two years ago, when she was last seen.

Before proceeding to discuss the probable cause of this peculiar train of symptoms it may be wise to review briefly the various causes of ocular paralysis. An ocular paralysis may be of either orbital, basal, nuclear, or cortical origin. Orbital paralyses are almost always accompanied by some local sign, such as pain, swelling, &c.; basal paralyses are exceptionally rarely isolated, but they generally implicate several nerves; nuclear paralyses are characterised by non-recognition of double images and the occurrence of a condition of somnolence; and cortical paralyses are generally or always conjugate—namely, associated movements are implicated. Writers on the subject are agreed that syphilis is the most common cause of ocular palsies, and, further, that in this condition the third nerve is affected in preference to the fourth and sixth. Some writers state that one-half of the total of ocular palsies are syphilitic. Next to syphilis spinal disease is either accompanied or preceded by an ocular palsy; but it must be remembered that spinal diseases are most frequently found among the syphilitic. In spinal affections ocular symptoms are frequently noticed a long time prior to the date of the discovery of the symptom characteristic of spinal disease, and also it is known that such ocular symptoms, although they may be permanent—more especially optic nerve changes and other symptoms in later stages—are often transitory and variable, ultimately passing away completely. Some difference of opinion exists as to which ocular nerve is most frequently affected in such cases, but Gowers, Berger, De Watteville, Landolt, and others are agreed that in tabes and insular sclerosis the rectus extensor—i.e., the sixth nerve—is most frequently paralysed, whereas Pierre Marie states that the third nerve is most frequently affected. The next type of ocular paralysis frequently mentioned is the so-called rheumatic type, the existence of which is doubted by some writers, notably by Jeffries,[1] who states that "in 60 cases or so there is but one which can fairly be considered as belonging to this group, if it exist" and he seems to consider them as syphilitic. Noyes mentions rheumatic paralysis as being difficult to prove. In addition to these general conditions causing, as well as predisposing to, paralysis, many other affections, such as meningitis in children, especially often of tuberculous origin, cerebral abcess, softening, tumour, hæmorrhage, etc., orbital tumour, abscess, injury, etc., may give rise to loss of function of one or more of the ocular muscles. Variable paralyses are usually of central origin and most frequently precede spinal lesions, as Jeffries[2] says "Transitory paralyses in the syphilitic are strongly suggestive of tabes to follow."

Search has failed to bring to light any record of a case exactly parallel to this present one, but it may be mentioned that in July, 1895, I saw at the Eye Infirmary, Glasgow, a young woman suffering from paralysis of the right external rectus muscle, who stated that, "a few weeks before, the left eye had been affected in the same way." No note of this fact could be found, and the patient was ultimately lost sight of. In the present case, then, we have to account for a paralysis of one muscle slowly becoming complete and rapidly recovering, followed by an exactly similar paralysis of the homologous muscle on the opposite side, also ending in complete recovery. Generally speaking, the total absence of any sign of other disease or implication of other nerve, points to freedom of the orbit and base of the skulls from any lesion. The absence of evidence of conjugate paralysis indicates freedom of the cerebral cortex, whilst the variable nature of the paralysis and the non-recognition of the double images seem to indicate that the lesion was of nuclear origin. The history of the patient excludes syphilis, and, to a less degree it is true, spinal disease, for although it is now more than two years since the last symptom of the affection passed away, it is well known that sometimes premonitory symptoms of spinal lesions may be present and may have been present, but have passed away many years before the characteristic symptom appears. In the case, however, of a young female, free from both syphilis and tuberculous disease, spinal disease is, although not unknown, not common. Rheumatism was practically unknown in this patient's family; and further, as a rheumatic paralysis seems to be the result of a periostitis round the foramen or passage whereby the cranial nerve (such as the seventh nerve) leaves the cranial cavity, it is not probable that such a lesion could account for the train of symptoms here present, especially without giving rise to any other symptoms.

A few words may be of service here regarding the position and relations of the sixth nerve and its nucleus. The nucleus of the sixth nerve lies in the floor of the fourth ventricle, superficially, and close to the median line and to its fellow of the opposite side; over it pass the fibres of the intermediary portion of the seventh nerve as they leave their nucleus. From the nucleus the fibres of the sixth nerve pass almost straight through the pons—some of the fibres passing between the bundles of the pyramidal tract—and emerge just below the pons. From this point the nerve passes along the cavernous sinus and enters the sphenoidal fissure, where it lies below the other nerves with only the ophthalmic vein below it—a point which is of importance in consideration of the clinical fact that there was no evidence at any time of congestion of the retinal veins. Remembering, then, the close promixity of both nucleus and nerve to other structures it will be seen that almost any gross lesion affecting either of them would almost certainly affect some other structure, either nervous or vascular; but here there was no evidence of any such implication. In this manner, then, one may practically exclude tuberculous and other meningitis, cerebral tumour, abscess, softening, or hæmorrhage, as well as other causes of ocular palsies, for it would be difficult to imagine that any one of these could act upon one point only—and that one so small—without giving rise to any symptoms other than those referable to that point, first on one side and then on the other. Regarding connexions above the nucleus, fibres from the cortex to the sixth nucleus probably cross in the pons, so that unless two lesions had occurred, one on each side, in the cerebral cortex or in the corona radiata, which is not probable, a lesion would have occurred in that most complicated junction, the pons, without giving rise to any but isolated symptoms of an evanescent character, which would be difficult to imagine possible.

No functional disturbance was found which, acting reflexly, might for a time inhibit the activity of the nuclei of the sixth nerves. Hence, in spite of the facts that the patient was of quiet manner, and that, as Charcot and others have said, hysterical affections of facial and ocular muscles are very unusual, this case came to be looked upon as one of hysterical origin, and unless the future history of the patient brings to light further facts or manifestations, it is probable that in that convenient receptacle for unaccountable cases, hysteria, it will remain until further investigation throws new light upon the etiology and pathology of temporary paralysis of the ocular muscles.

Glasgow.

[1] Eye Paralysis, by John Amory Jeffries (late of Boston), 1892.
[2] Ibid.

ICE-CREAMS AT CARDIFF.—Before the stipendiary magistrate at Cardiff on July 6th an Italian was summoned at the instance of the sanitary authority for having neglected to keep his premises used as a common lodging-house in a clean and fit condition. The sanitary inspector stated that the houses were in a filthy condition, the yard was covered with animal refuse, and yet a number of organ-grinders and ice-cream vendors lodged there. The medical officer of health also described the dirty condition of the place in which ice-cream was made. The magistrate was satisfied that the yard was unfit for the manufacture of any article of human food, and fined the defendant £5 and costs, or one month's imprisonment.

NOTES ON THREE CASES OF EMPYEMA OF THE MAXILLARY ANTRUM IN WHICH A "BAD SMELL IN THE NOSE" WAS THE ONLY SYMPTOM COMPLAINED OF.

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DURING the recent epidemics of influenza one of the common symptoms was severe catarrh of the nares, often of a purulent or muco-purulent nature. In many cases one or more of the accessory cavities of the nose became affected—the maxillary antrum, the sphenoidal or the ethmoidal cells, most frequently the former. Very few text-books deal at all fully with the diseases of the sphenoidal or ethmoidal cells, and the descriptions of disease of the maxillary antrum are most misleading and exaggerated. We read of exophthalmos, severe pains in the cheek, extensive swelling, copious discharge of offensive pus, &c. These symptoms certainly do occur in acute or severe cases, but in the large majority of cases the symptoms are not at all well marked. Often the patient complains only of a slight offensive discharge from one side of the nares, and frequently the only subjective symptom is a bad smell in the nose. In the three cases which I am recording the patients complained of nothing else except an occasional bad smell in the nose, which was frequently most offensive and disagreeable. Nor were there any marked changes to be found in the nares except slight hypertrophy of the mucous membrane.

CASE 1.—A woman, aged thirty-five years, single, had a severe attack of influenza three years ago, accompanied by muco-purulent rhinitis. Since that time she had noticed an occasional and sickly smell in the right nostril, which varied in frequency and intensity. It was often so offensive that the patient felt sick and miserable. When I saw her in February, 1896, the right nostril was apparently normal, with the exception of some thickening of the mucous membrane. Transillumination gave negative results (as in most cases). An exploratory puncture of the antrum was refused, as the patient said that "she did not wish to be experimented on." In July under chloroform I opened up the antrum through the alveolar process. A few drops of offensive pus escaped. A gold pin was attached to the false teeth, which the patient was wearing, and passed into the antrum. This was syringed out daily, and insufflations of aristol and boric acid were used. The smell disappeared after the operation and has not returned.

CASE 2.—A young woman was sent to me in April, 1897, for "polypi in the right nostril" and an offensive smell in the nose. Eight years previously the patient had all the upper teeth removed because they were loose and painful. Six years ago she first noticed an occasional and offensive smell in the right nostril, which had increased in severity and frequency. There was some hypertrophy of the mucous membrane of the right nostril, but no polypi. I passed a Lichtwitz exploratory trocar through the wall of the lower nasal meatus into the antrum and injected warm boric acid lotion. A large quantity of offensive pus came away through the right nostril, and the patient at once exclaimed, "That is the smell I complain of." The antrum was opened through the alveolar process and treated by insufflations, and recovery followed.

CASE 3.—A married woman, aged sixty-three years, had complained of an occasional and offensive smell in the nose and throat for several years. In the middle meatus of the right nostril there was a pulsating reflex, and on one occasion I could find a little pus in the middle meatus. In May, 1897, I passed a Lichtwitz trocar through the lower nasal meatus into the antrum and injected warm boric acid lotion. A little offensive pus came away; there was no return of the smell until June 4th. On June 10th, under cocaine, I opened up the antrum through the alveolar process. Up to the present there has been no return of the smell.

These three cases seem to prove that empyema of the maxillary antrum often exists without any of the alarming symptoms which are described in text-books. As a matter of fact, cases of disease of the antrum are fairly common, but are in most cases overlooked. I have purposely not entered into the details of the operation or the etiology of empyema of the maxillary antrum. The less severe cases are most frequently due to disease of the mucous membrane of the nares. I have also avoided entering into the details of differential diagnosis between the diseases of the maxillary antrum and those of the sphenoidal or ethmoidal cells. The symptoms are in many cases very similar.

Bradford.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

AN UNUSUAL INCIDENT IN LITHOTRITY.

By SINCLAIR WHITE, M.D. R.U.I., F.R.C.S. ENG.

A MAN, aged fifty-two years, was admitted to the Sheffield Royal Hospital on June 21st last for the removal of a vesical calculus of many years' standing. Two days later I proceeded to crush it, but after working for a few minutes the lithotrite jammed with the blades three-fourths of an inch apart. A surgical instrument maker was sent for, but he was unable to liberate the blades, which were, of course, much too far apart to allow of the instrument being withdrawn. The only way of escape from the dilemma appeared to be in performing supra-pubic lithotomy. This was accordingly done, and after removing the stone we succeeded in protruding the blades of the lithotrite through the wound. They were then placed in a vice and pressed together until the female blade fractured. The male blade could now be driven home and the instrument was removed. Had the vice failed us we were prepared to file through the projecting end of the male blade. Owing to the lithotrite being in the urethra the bladder could not be distended; but by using a large rectal bag no difficulty was experienced in reaching the bladder.

The stone, with the crushed débris, weighed one and a half ounces, and was a typical oxalate of lime calculus. The lithotrite was an old one which had seen much service. The patient is doing well.

Sheffield.

NOTE ON A CASE OF RUPTURED DUODENUM; DEATH IN SIXTEEN HOURS.

By NAPIER CLOSE, L.R.C.P. EDIN., &c.,
LATE HER MAJESTY'S CONVICT SERVICE.

ON June 24th last I was called in the evening to see a boy, thirteen years of age, who had been kicked by a horse early in the morning of the same day. I first saw him twelve hours after the infliction of the injury, when his condition was as follows. He was lying in bed upon his back with the hip-joints slightly flexed. His face was pale and wore an anxious expression. He complained of some pain in the lower part of the abdomen, which was slightly distended and very tender. There was no visible bruise or external wound. The abdominal muscles were rigidly contracted, which fact, combined with the tenderness, prevented the acquirement of any information from palpation. The percussion note was quite dull over the whole of the lower part of the abdomen and in the left flank. There was a band of tympanitic resonance below the costal margin and ensiform cartilage, and in the right flank also the note was tympanitic in character. The temperature in the mouth was 102·5°F. The pulse was 140 to the minute, rather small, but not thready. He was quite conscious, and gave me a connected account of the accident. The boy's father, who saw him immediately after the accident, told me that he was soon able to walk some distance up the field in which it had occurred, and then he lay down for some time. Subsequently he was taken home, and after the application of hot flannels he so far recovered that he was able to get about for some hours, and walked upstairs and downstairs. Towards evening he vomited, and I was sent for. Dr. Crosby, of Leicester, who was staying with me, kindly saw the patient, and we passed a catheter, drawing off clear urine without blood. From the symptoms

nd examination we concluded that the boy had in all probability sustained a rupture of the intestine, and that in immediate laparotomy lay his sole chance of life. Accordingly I asked Dr. Balfour, of Chard, to administer chloroform. Before Dr. Balfour's arrival the boy rapidly got worse; the pulse at the wrist became imperceptible, and the temperature fell to 97°. The lad was evidently dying, and under the circumstances it seemed useless to risk the accusation of having killed him. He died about an hour afterwards. Dr. Crosby told me that before death the abdomen became much more distended, with tympanitic percussion note all over, and loss of liver dulness.

By the coroner's order I made a post-mortem examination fourteen hours after death. The peritoneum contained about two pints of cloudy fluid, mixed with partially digested food. There were flakes of recent lymph adherent to the intestines, which were much reddened. On turning back the omentum and coils of small intestine a rent in the second part of the duodenum was revealed, from which the chyme was escaping. It was large enough to admit four fingers, and was distant four and a half inches from the pyloric orifice.

The case seems to me to be of interest from the fact that, notwithstanding the presence of such an extensive lesion in the abdomen, the boy was able to get about for several hours, and apparently suffered little pain. It was, in fact, difficult at first to persuade his parents that he was in imminent danger of death.

Chard.

NOTE ON A CASE OF PUERPERAL ECLAMPSIA.

By JOSEPH JOHN STACK, L.R.C.P. EDIN., L.R.C.S. IREL.

A MARRIED woman expected to be confined of her first child in the first week of September, 1896. During the early part of her pregnancy, which was wholly spent on board ship, she enjoyed the best of health, and was evidently looking forward with pleasurable anxiety to her approaching maternity. On reaching England, however, she seemed very much upset by hearing that her husband would shortly be out of employment. On the night of the bad news she was considerably alarmed at the fact that her ankles were much swollen, and that her boots seemed to be too small for her feet. This happened about the end of June. On July 3rd she consulted me about the condition of her legs, and at my request she sent me a sample of her urine, which was passed scantily, and which upon examination was found to contain albumin to about one-twelfth of the specimen in the test-tube. For a few days after her visit I attended her and strongly advised her not to undertake the long journey to Ireland which she then contemplated for her accouchement. After some days' rest in bed the swelling in the legs more or less disappeared, but the albumin was still present in the urine. She was now affected with an irritable cough; the arms and hands began to swell, as also did her face. She complained of a severe pain over the left half of her head. On the night of July 16th she had a severe attack of diarrhœa and vomiting, and on the following morning she was unable to remain in one position. She was now seized with convulsions, which continued off and on during the day, with only the intervention of the profound coma that succeeded each attack. All available classical medicaments were tried—chloroform was inhaled and chloral in twenty-grain doses was administered per rectum every two hours; but as the fits got more prolonged and the intervals between them began to decrease I, with the approval of a medical friend (Mr. H. J. Dixon), proceeded to bring on labour. This procedure was attended with considerable difficulty and anxiety. A uterine sound was first introduced so as to separate the membranes, and after some waiting I was able to introduce my finger-tip so as to feel the presenting head of the child, when I succeeded in puncturing the membranes with a hairpin straightened out. For some time after this there was an abatement in the symptoms; the fits did not cease, but they were not so frequent. The pains of labour now came on, and with each pain a fresh seizure took place. The patient was kept under chloroform as much as seemed consistent with her safety, but the only course that seemed clear to me was to empty the uterus with all possible speed. I dilated the os uteri with my fingers, and after unsuccessfully attempting to introduce the forceps I turned and delivered her of a living male infant. She had a slight convulsion after delivery. For some days afterwards the patient was in a rather low condition; the pulse was about 120 and the temperature ranged between 100° and 103° F. She was frequently syringed out with lysol, and iodoform was copiously dusted on the vulva. A little trouble with her breasts, which lasted for a week or so, caused her to lose her spirits; but she eventually made a good recovery, and only regretted the loss of her infant. The urine was quite free from albumin two days after delivery.

I know that dilatation of the os and turning are both strongly deprecated by many of the leading lights of the profession; but under the circumstances I felt that I was obliged to have recourse to both measures. Stimulants, nutriments, quinine, and occasional douching were continued until convalescence.

New Cross-road, S.E.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. GEORGE'S HOSPITAL.

A CASE OF ACUTE YELLOW ATROPHY OF THE LIVER IN A GIRL TWELVE YEARS OLD; NECROPSY.

(Under the care of Dr. CAVAFY.)

ACUTE yellow atrophy of the liver in many respects greatly resembles phosphorus poisoning; in fact, so great is the likeness that Munk, Wagner,[1] and others have maintained that all cases of acute yellow atrophy are due to poisoning by phosphorus. It is said that the absence of leucin and tyrosin from the urine is against a diagnosis of acute yellow atrophy and in favour of phosphorus poisoning. The history of the following case is by no means unlike a case of sub-acute poisoning by phosphorus. Apparently no bacteriological examination was made; this would have been of great interest in view of the theory held by many that the disease is bacterial in origin. For the notes of the case we are indebted to Dr. E. T. Fison.

A girl, aged twelve years, was admitted into St. George's Hospital on March 10th, 1897. Three weeks previously she had complained of having general pains, which lasted three days; these were followed by what was thought to be a "bilious" attack, as shown by vomiting after food and headache. Since March 3rd she had been jaundiced. There was no history of fright or mental shock. When admitted the child was very jaundiced and looked ill. The temperature was 101·4° F., and the pulse was 92. The tongue was coated. There was much bile in the urine, but none in the fæces. Physical examination showed that the heart and lungs were normal, but the liver appeared to be enlarged and extended to three fingers' breadths below the costal margin. The child complained of persistent pain in the right hypochondrium, and was occasionally sick; her appetite was bad. The jaundice varied greatly in its intensity from day to day. The case seemed to be rather different from one of simple or catarrhal jaundice on account of the raised temperature and the enlargement of the liver; however, a provisional diagnosis of simple jaundice was made. By March 15th the temperature had reached normal, but the symptoms and jaundice remained the same. On the 20th the liver appeared to be smaller, but the general condition was unaltered. On the 21st, at midday she suddenly became drowsy, she would not perform any action or answer questions, and she was unable to swallow. The reflexes were not abolished, but urine and fæces were passed into the bed. The temperature was slightly above the normal; there was no delirium. On the 22nd she remained in the same state, the liver appeared

[1] Archiv der Heilkunde, 1862, p. 364.

to be slightly smaller, but there was some uncertainty about this. On the 23rd in the morning hæmorrhages were noticed over the sacrum; in the evening she had an attack of convulsions of the arms followed by rigidity; the temperature was now 102° and the pulse was 160; the tongue was dry and brown. The patient was completely comatose and died at midnight on the 23rd, sixty hours after the onset of acute symptoms. No leucin or tyrosin was found in the urine; the urine examined was not concentrated.

Necropsy.—Dr. Arthur Latham made a post-mortem examination thirteen hours after death. The body was rather wasted, the skin and conjunctiva were stained light yellow, and in the skin there were a few scattered petechial hæmorrhages. Rigor mortis was marked. There was no fluid in the pleural cavities. The right lung weighed 8 oz. and the left was the same weight, and showed a few subpleural petechial hæmorrhages. Both lungs were very œdematous, and there was muco-pus in the larger bronchi. The larynx and trachea, the bronchial glands, and the thyroid were all normal. The heart weighed 1½ oz., the cardiac muscle was bile-stained, and the pericardial fluid was bile-stained. The valves were good. There was a considerable quantity of bile-stained fluid in the peritoneal cavity; numerous sub-peritoneal hæmorrhages were present, especially along the greater curvature of the stomach and in the great omentum. The liver weighed 3 lb. 8 oz. and was flabby; the capsule was somewhat wrinkled, especially on the under surface of the right lobe. The organ was not larger than usual, but was displaced slightly downwards. On section the substance was distinctly firm, of a light yellow-ochre tint, but with no red areas, although there were a few minute hæmorrhagic patches. The lobules were indistinctly outlined. The gall-bladder was full of green bile mixed with an excess of mucus. The ducts were normal and there was no obstruction in them, but at the papillary orifice in the duodenum there were some slight inflammation and œdema which prevented the ready expression of the bile. The portal vein was normal. The glands in the portal fissure were slightly enlarged. On microscopic section very few natural liver cells were seen, and they were full of granules. The liver tissue was to a great extent replaced by granular and fatty débris contained in a reticulated, homogeneous, nucleated structure, the nuclei probably being derived from liver cells. There was no leucin or tyrosin observed. The capsule of the liver was slightly thickened; the pancreas was normal; the spleen was very congested and rather soft; the kidneys weighed 3½ oz. each; the cortex was pale; and the adrenals were normal. The stomach contained altered blood. There were patches of submucous hæmorrhages. In the intestines was a large number of submucous hæmorrhages, especially in the cæcal region. The rectum was normal. The bladder was normal. The muscle of the uterus was bile-stained. The brain weighed 3 lb. 2 oz.; the dura mater was bile-stained, and the brain tissue was normal.

Remarks by Dr. FISON.—The diagnosis of the case appeared to rest between cholæmia, biliary cirrhosis, and acute yellow atrophy of the liver. The necropsy showed that the liver was in a condition of acute atrophy. The chief points of interest seem to be the age of the patient, the fact that the acute atrophy was preceded by a temporary enlargement of the liver, and the difficulty in the diagnosis. If there had been any certainty about the apparent diminution in the size of the liver the diagnosis would have presented no great difficulty; there was, however, considerable doubt about this. On referring to the literature of this disease Osler states that the disease is most common between the ages of twenty and thirty years, but is occasionally seen in young children. In St. Bartholomew's Hospital Reports Mr. Freeborn of Oxford and Dr. West[2] report three cases, all occurring in children—two boys aged four and seven years and one girl aged four years. There was no difference in the symptoms from cases of acute yellow atrophy in adults. All of them died within forty-eight hours of the onset of cerebral symptoms, and in two of the cases the liver was temporarily enlarged previously to the atrophy. Moxon[3] noted the same thing in the case of a woman, aged thirty-four years, who died from acute liver atrophy. Merkel[4] also reports a case of a child, six years old, who suffered at first from malaise and loss of appetite and jaundice. Eight days from the commencement of the illness the liver was diminished, the jaundice increased, convulsions came on, and death occurred on the seventeenth day. The temperature was not raised. Greves[5] has collected seventeen cases, all of which occurred in children under ten years old, the youngest being an infant aged three months. Yeoman[6] records a case of acute yellow atrophy in a female child aged ten months. Death occurred on the third day after jaundice was first noticed. F. Lanz[7] reports a case in a boy four years old. Death followed four days after the development of the first symptom. The above cases show that jaundice occurring in children does not invariably lead to a favourable result, and that it is well to bear in mind the rare occurrence of acute yellow atrophy of the liver.

[2] St. Bartholomew's Hospital Reports, vol. x., p. 39.
[3] Transactions of the Pathological Society of London, vol. xxiii., p. 138.
[4] Münchener Medicinische Wochenschrift, Jan., 1894.
[5] Liverpool Medico-Chirurgical Journal, July, 1884.
[6] THE LANCET, Aug. 20th, 1892.
[7] Wiener Klinische Wochenschrift, 1896, No. 20.
[8] Grünberg: Meditzinskoje Obozrenije, Warsaw, Nov. 3rd, 1895.

STANLEY HOSPITAL, LIVERPOOL.

A CASE OF UR.EMIC ECLAMPSIA IN THE SEVENTH MONTH OF PREGNANCY; INHALATIONS OF OXYGEN; RECOVERY.

(Under the care of Dr. C. J. MACALISTER.)

ASPHYXIA is the immediate cause of death in some cases of puerperal convulsions, and for these Dr. Macalister's treatment by oxygen will probably prove very beneficial; unfortunately, the fatal issue in but few cases is the result of respiratory difficulty, and therefore the method can never have a very wide application. Pilocarpine, though in many cases of great value, is decidedly harmful in others.[8] For the notes of the case we are indebted to Mr. F. Deas, house surgeon.

A woman, aged thirty-one years, was admitted to the Stanley Hospital, Liverpool, late on Jan. 20th, 1896, under the care of Dr. Macalister. On admission the patient was absolutely comatose. A note sent with her by her medical attendant stated that she had only been taken ill that morning, that he had seen her in one fit, that she had passed no urine since the previous day, and that she was seven months pregnant. Her husband stated that she had enjoyed the best of health up to the evening of the 19th, when she complained of headache and of feeling very drowsy. She was pregnant for the first time. Immediately after the patient was put to bed she had a rapid series of violent convulsions, the face became extremely livid, the breathing was stertorous, and at times of the Cheyne-Stokes character. The fit lasted about half an hour. The convulsions gradually subsided, and the patient again passed into a deep coma. No urine or fæces were passed during the fit. While still comatose a catheter was passed, and two ounces of urine were drawn off, which on boiling became nearly solid with albumin. In about a quarter of an hour the patient had another violent convulsive seizure, the lividity and difficulty of breathing being very severe. Immediately after the commencement of the fit the inhalation of oxygen was commenced, and with very marked effect. Although the convulsive movements continued they were much less violent, the breathing soon became quiet, and in a very short time, about a minute, the lividity had quite disappeared. The movements ceased in about fifteen minutes, and she again passed into a comatose condition. During the night the patient had four attacks, each lasting from ten to fifteen minutes, and in each attack oxygen was administered with equally good effect. In the intervals between the fits she was quite comatose. Early on the morning of the 21st she gave birth, unconsciously, to a dead seven months' fœtus. On the 21st she had five attacks, each lasting about ten minutes. She was still comatose in the intervals, and could not be roused sufficiently to take anything by the mouth. Urine had to be drawn off, being still loaded with albumin. An enema was administered, which brought away a copious stool. On the 22nd she remained much in the same condition. She had four convulsive attacks, each lasting about ten minutes. She passed a small quantity of urine in one fit. On the 23rd she was conscious for the first time, although very drowsy. The bowels acted well after an enema of sulphate of magnesia. She had three attacks of convulsions, each lasting from ten to fifteen minutes, but they were not so violent as the previous attacks had been. On the 24th, and again on the 25th, she had two seizures, each of which was

milder than the previous one. In all these attacks the dyspnœa and lividity were extreme, but in each case these urgent symptoms were promptly relieved by the inhalation of oxygen, which also appeared to have a decided effect in abating the violence of the convulsions. Up to this time (the 25th) she had not voluntarily passed more than about ten ounces of urine, although from thirty to forty ounces were drawn off by the catheter. The urine contained large quantities of albumin, as much as five-sixths. Retinal hæmorrhages were to be seen in both eyes. On the 26th the patient was much better. She began to pass urine naturally (forty ounces during the day), and the albumin was reduced to two-thirds. From this date she made an uninterrupted recovery and was discharged on March 12th. When she left the hospital there was the merest trace of albumin in the urine and the retinal hæmorrhages had to a great extent cleared up. The patient was seen quite recently. She had not had any bad symptom since leaving the hospital. She was delivered about the middle of May, 1897, at full term, of a dead child. Her medical attendant stated that the labour was easy, and that there had been no sign of any recurrence of last year's trouble.

Remarks by Mr. DEAS.—In view of the high mortality in cases of uræmic eclampsia in pregnancy the above case may be of interest, especially as showing a use for oxygen previously recorded by Dr. Macalister in THE LANCET of Dec. 7th, 1895. There are several points of interest in the case, the chief, I think, being the markedly beneficial effect of the oxygen. It was the extreme lividity and dyspnœa which led to its use. It was evident that, whatever the toxin might be, the patient's most urgent need was to get her blood re-oxygenated, and it occurred to me to introduce free oxygen as directly as possible. It certainly seemed far safer than restraining the violent convulsions by means of chloroform in a patient alternating from convulsions to deep coma, the coma being also a great hindrance to exhibiting any purgative or diaphoretic drugs by the mouth. Two other points struck me forcibly at the time. Twice I administered hypodermically one-third of a grain of pilocarpine nitrate, and each time it was followed immediately by a violent convulsive seizure and vomiting. The other point was the excitation of the convulsions by slight peripheral irritation, eight attacks following immediately the passage of the catheter, and four after a vaginal douche.

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

Two Unusual Cases of Tubal Gestation.—Primary Sarcoma of the Body of the Uterus.—Exhibition of Specimens.

A MEETING of this society was held on July 7th, Dr. WILLIAM DUNCAN, Vice-President, being in the chair.

Dr. ARTHUR GILES and Dr. EWEN MACLEAN contributed a paper on Two Unusual Cases of Tubal Gestation, the one causing chronic intestinal obstruction and associated with hæmato-salpinx of the non-gravid tube, and the other simulating retroversion of the gravid uterus. Case 1.—The symptoms and physical signs were principally those of pelvic cellulitis, together with evidences of pregnancy, whilst the case was complicated by chronic intestinal obstruction. In some respects the conditions suggested retroversion of the gravid uterus, and with this idea an attempt was made to push up the mass lying behind the cervix under an anæsthetic, but without success. The patient gradually got worse, and the propriety of opening the abdomen was discussed, but it was agreed that the patient's condition was so grave that she would probably not stand the shock of operation—an opinion confirmed by her death shortly afterwards. Case 2.—The symptoms and physical signs were those of retroversion of the gravid uterus causing retention of urine. An attempt to push up the mass behind the cervix under an anæsthetic was unsuccessful. But while the patient was resting in bed the symptoms improved. Nine weeks after admission she was operated upon and a tubal gestation was found, filling up the pelvis behind the uterus. Two conclusions were drawn as to treatment. First, that a pelvic tumour which differed in signs and symptoms from classical types should not be treated by the expectant method, but should be dealt with surgically as soon as possible. Secondly, that if a tubal gestation be diagnosed before rupture takes place the possible train of disasters will be best averted by immediate operation.—Dr. HORROCKS considered that it would have been better to have operated on the case which afterwards proved fatal. No doubt it was a difficult point to decide, but he considered it a good rule that when in doubt it was better to operate. This rule was, indeed, more firmly established now that better weapons were available, such as saline injections to deal with collapse, and also a more perfect system of asepsis. He asked what was the cause of death. Was it hæmorrhage? And, if not, was there any clotting or embolism? He also pointed out that the uterus was only three inches long; obviously from the size of the fœtus the uterus had either not increased in size as was usual or the fœtus had died and involution to some extent had taken place.—Dr. DRUMMOND ROBINSON asked Dr. Giles and Dr. Maclean why they had considered that the case might possibly have been one of cellulitis. He thought that the physical characters present suggested peritonitis rather than cellulitis. He also drew attention to the fact that a history of injury was absent—a point against the diagnosis of cellulitis.—Dr. MAIDLOW remarked that the history of the physical signs pointed to pelvic peritonitis and not cellulitis—a fact which, with the signs of pregnancy, he thought might have pointed to ectopic gestation. Moreover, symptoms of intestinal obstruction of any severity were in his experience very rarely associated with retroversion of the gravid uterus.—After some remarks by Dr. GALABIN, Dr. GILES, in replying, said that he quite agreed with Dr. Horrocks's rule, "when in doubt operate." In the first case, however, the patient's condition was so bad that it seemed impossible that she could stand an operation. The cause of death was intestinal obstruction and collapse. His reason for regarding the case as one of pelvic cellulitis rather than peritonitis was that in the first place there was at the time no reason to suppose that the appendages were affected, and he was in the habit of associating pelvic peritonitis with tubal mischief. In the second place the board-like hardness was more suggestive of cellulitis than peritonitis.

Dr. LEWERS read a paper on a case of Primary Sarcoma of the Body of the Uterus (Deciduoma Malignum) in a patient, twenty-four years of age, treated by vaginal hysterectomy. The patient had been married a year and believed that she had had three miscarriages, at two months, six weeks, and three weeks respectively. She came under observation on account of persistent metrorrhagia, dating from the time of the first supposed miscarriage, about eight months previously. The case on admission was at first supposed to be one of incomplete abortion, but after dilatation of the cervix examination showed that the symptoms were due to a malignant growth in the body of the uterus. Vaginal hysterectomy was performed on Feb. 11th, 1897; the patient recovered and was free from any sign of recurrence in May last. An examination of sections of the growth showed it to be a sarcoma and essentially identical with what had been described under the name of deciduoma malignum. Dr. Lewers examined the evidence as to the patient having ever been pregnant at all. While admitting the impossibility of proving she had never been pregnant, he considered that, having special regard to the fact that menstruation had never been regular, there was some probability that conception had never occurred.—Dr. EDEN said that the question of the connexion of these growths with pregnancy was the point upon which the whole theory of deciduoma malignum was established. If it could be shown that the disease had occurred in women who had never conceived then the theory must be abandoned, but nothing could be more difficult than the absolute exclusion of pregnancy by scientific proof in any woman, and in women whose menstruation was irregular it became quite impossible. It was obviously unfair, however, to agree that every woman might be assumed to have been pregnant unless the contrary could be proved. Direct evidence of pregnancy being so much more easily obtained, they were justified in asking that in those cases the positive evidence of pregnancy should be conclusive. In Dr. Lewers's case he thought there could be no reasonable doubt that the woman had never been pregnant at all, although in the nature of things absolute proof of this was impossible. Two other cases of deciduoma malignum had been recorded

in which the evidence of pregnancy was equally wanting. It could not be too strongly emphasised that irregular hæmorrhages occurring in women who were the subjects of malignant disease of the uterus were no proof of abortion.

The following specimens were exhibited:—

Dr. LEWERS: Primary Sarcoma of the Body of the Uterus (to illustrate his paper).

Dr. GALABIN: An Œdematous Fibroid, weighing 20lb., removed by Hysterectomy.

Dr. GILES: Molluscum Fibrosum from the Labium Majus of a pregnant woman.

BRITISH GYNÆCOLOGICAL SOCIETY.

Mechanism of Inversion of the Uterus.—Escharotics in the Treatment of Uterine Cervical Cancer.

A MEETING of this society was held on July 8th, Mr. MAYO ROBSON, President, being in the chair.

Professor HECTOR TREUB, of Amsterdam, read a paper on the Mechanism of Inversion of the Uterus. He related a case of inversion in a patient who had been pregnant three times. Each pregnancy had ended in abortion, the last occurring seven years ago. For some time she had observed that something was protruding in the vulva, but she could always reduce it easily. Eleven weeks ago a prolapse appeared suddenly and could not be reduced. This caused much pain, and brought about hæmorrhage to the extent of making her swoon. Her general health had deteriorated, she had lost a fluid in appearance like meat-juice, and had been feverish. On examination a total inversion of the uterus, including the cervix, was found. Hysterectomy was performed, and the patient made a good recovery. Besides the œdematous mucous membrane the uterus only showed a very small intra-mural fibroid near the fundus. Microscopical examination showed that the muscular tissue was in a normal condition and that there was no question of atrophy of the uterine wall. Professor Treub proceeded to discuss the views held as to the mechanism of inversion. In only one group of cases was the mechanism wholly understood—viz., in those following immediately after labour; then the two elements upon which, according to Gaillard Thomas, the inversion depended were present—viz., relaxation and inertia of the uterine walls and downward traction or pressure. In other cases the explanation was far less obvious. Professor Treub rejected the theories of Küstner and of Schanta and Gottschalk as insufficient and submitted the following theory: "The base of a sessile tumour cannot contract because of the implantation of the tumour, which diminishes or altogether abolishes the contractility of that part of the wall. And it cannot be that only the contractility of that base is diminished; the surrounding parts must necessarily be feebler within a greater or smaller circumference. If from the outset the tumour is intra-mural the smaller degree of resistance of that part of the uterine wall, coupled with intra-abdominal pressure, may occasionally bring about a slight beginning of inversion; and when this is the case the conditions are essentially the same for sessile and intra-mural tumours and for the partial inversion described by Rokitansky. A circle of uterine tissue is abruptly curved in the place where Rokitansky found the external indentation. I need hardly say that in that incurved circle the uterine muscle must be absolutely paralysed. And this paralysis again will not be confined to a linear circle, but gradually diminishing will extend over a greater or smaller surface. The contractions of the normal part of the uterine wall will try to expel the part of the wall that acts as a foreign body. These expulsive efforts may slightly increase the inversion as far as the paralysis surrounding the circle of inversion permits, thus displacing the circle itself and paralysing another part of the uterine wall. Necessarily the extension of the partial paralysis proceeds farther in the uterine wall, too, and by the repeated action of this muscular play the inversion may gradually become complete as regards the body of the uterus. As soon as the body is inverted there is no longer any excitement for uterine contractions, and the inversion of the cervix generally does not take place. And it is the intra-abdominal pressure, again, that may invert the cervix too."

Dr. PURCELL, Dr. HEYWOOD SMITH, and Mr. SKENE KEITH having spoken, Professor TREUB replied.

Dr. HERBERT SNOW read a paper on Escharotics in the Treatment of Uterine Cervical Cancer. Of the various caustics used two stood out pre-eminently—viz., chloride of zinc and potassa fusa. As caustics they were on a par, but whereas the pain induced by the former was difficult to relieve, the pain resulting from potassa fusa could be instantly checked by the application of water; hence Dr. Snow believed that "the ideal caustic for malignant disease of the uterus or elsewhere was potassa fusa." He thought treatment of the cancerous cervix by escharotics preferable to hysterectomy.—The PRESIDENT thought that some of them would not agree with Dr. Snow's conclusions with regard to hysterectomy, because they could point to cases where this operation had been performed, and where the patients had remained well for much longer than the three years considered necessary to establish a cure. He would like to hear further details of the mode of application of potassa fusa; he had always regarded it as an agent rather difficult to control on account of its deliquescent properties. — Mr. SKENE KEITH said that he had used potassa fusa a good deal and believed it was originally an old Edinburgh remedy. He had applied it through a large Fergusson's speculum, rubbing it in in the form of a stick held in a caustic-holder. To prevent it from unduly spreading he used pyroligneous acid.—Dr. PURCELL and Dr. HEYWOOD SMITH made some observations, and Dr. HERBERT SNOW replied.

Reviews and Notices of Books.

Human Embryology. By CHARLES SEDGWICK MINOT, Professor of Histology and Human Embryology, Harvard Medical School, Boston. With 463 Illustrations. New York: The Macmillan Company. London: Macmillan and Co., Limited. 1897. Pp. 815. Price 25*s.*

THIS well got up and richly illustrated work is the result, the author tells us, of ten years' labour and is without doubt the fullest and most complete account of the embryology of man that has hitherto appeared in the English language. The author is well known and has made many contributions to the subject of embryology on his own account. His work as a whole may be regarded as a continuation, with special application to man, of Balfour's "Comparative Embryology," embracing in a very creditable manner the chief points in the very numerous and important additions to our knowledge that have been made by many workers throughout almost all the countries of Europe, not only in the embryology of human, but in that of the lower vertebrata and of the invertebrata.

Dismissing details of anatomy as being readily accessible in text books, Professor Minot plunges at once into the histology of the uterus. He takes exception to the view frequently expressed that the muscular tissue of the uterus essentially represents a hypertrophied muscularis mucosæ, believing that a muscularis mucosæ is not a primary but a secondary formation, and that it need not be coexistent with a mucous membrane, in support of which he points to the fact that in various instances in the animal kingdom a mucous membrane may be found without such a muscular layer. He describes with much precision and in considerable detail the appearances presented by the virgin uterus at the close of menstruation, his observations being opposed in some points to the statements of Sir John Williams; then by natural transition he passes on to describe the histological characters of the decidua serotina, vera and reflexa, and the results he obtained from the examination of various uteri at different periods of pregnancy. He entertains no doubt that the large cells of the decidua are directly derived from the connective tissue cells of the mucosa, the areolæ seen in section belonging to the glands which are considerably distended and distorted, and these

he thinks are really the distended capillaries described by Sir William Turner. It is difficult to demonstrate the decidua reflexa after the fifth month, and preparations which Professor Minot possesses show that as early as two months the decidua reflexa is undergoing hyaline degeneration, that at three months the degeneration is considerably more advanced, and that by the sixth and seventh month the reflexa can no longer be found. The changes in the mucosa following parturition are very well given. We are still curiously ignorant of the cause or causes of the formation of the decidua either in menstruation or gestation, as well as of the cause of delivery, though in regard to the last-named event many suggestions have been made. Some of these are briefly given by Professor Minot in the following sentence: "Mauriceau sought the stimulus which excites the uterus to normal contractions at the full term in the uterus having reached the limit of its expansibility; Naegele in the irritation caused by the embryo acting like a foreign body in the uterus; Engelmann, at least partly, in the degeneration of the decidual cells; Harse and others in the accumulation of carbonic acid in the blood of the uterus." Perhaps answers to the question will be obtained hereafter by careful studies in comparative anatomy. In the section on the Genital Products minute descriptions of the spermatozoa and ova are given, in which most of the recent researches are embraced. Professor Minot strongly advocates the polarity of the ovum, the nucleus being excentric and the yelk grains accumulating at the opposite pole. The maturation of the ovum rendering it fit for impregnation is marked, as von Baer originally maintained, by the disappearance of the germinal vesicle, which loses its membrane, whilst the contents present the phenomena of karyokinesis; the polar bodies representing the larger portion of the nucleus are then extruded, whilst a small portion of the nucleus remains to form the female pronucleus. In regard to the rupture and subsequent changes that take place in the Graafian follicle, Professor Minot describes the coagulum which fills the follicle after the rupture as being rapidly penetrated by tissue which grows into it from the wall of the follicle, composed of spindle-shaped connective tissue cells and large cells containing lutein granules with bloodvessels. He agrees with Benckiser's statement that the lutein cells arise exclusively from the theca interna. Professor Minot refers to the experiments of Hertwig and Fol as being the first to show that a single spermatozoon suffices to fertilise a single ovum, and, in fact, that the first spermatozoon that wins the race "prevents the penetration of other spermatozoa. How, is undetermined." Hertwig, however, states very definitely that at the moment the seminal filament has bored its way into the egg a fine membrane detaches itself from the yelk over its whole surface, due probably to contraction of the egg plasma, causing the expression of nuclear fluid, which renders the penetration of another male element impossible. The concordant testimony of a multitude of observers supports Hertwig's views; still, the experiments of Newport should not be altogether overlooked, which were to the effect that ova attacked—we will not say impregnated—by many spermatozoa were more perfectly developed than when only one or two appeared (to him) to enter the ovum. A minute description is given of the segmentation of the ovum and of the formation and differentiation of the ectoderm and entoderm, which he considers should receive the distinctive appellation of the diaderm stage; and this is followed by an account of what he terms the "law of concrescence," though the term "process" might with advantage have been exchanged for "law." In regard to the further development of the embryo from the appearance of the medullary groove to the origin of the cardiac and uro-genital systems, we must refer the reader to the original for the numerous details which have been culled by the author from a very large number of works on Embryology; suffice it to say he has studied the bibliography of each stage very carefully, and whilst giving the views of each investigator he does not hesitate to impartially criticise and often to correct them from his own large experience. There is a valuable chapter on Known Human Ova of the Second and Third Weeks, in which Professor Minot has collated all the descriptions of embryos not over three weeks—a task that has not hitherto been attempted. He has been successful in discovering about thirty-eight cases, of which a few are rather doubtful. The fourth part is devoted to the consideration of the fœtal appendages, including the chorion, amnion and pro-amnion, yelk sac, allantois, and umbilical cord and the placenta. The last part is devoted to the growth and development of the fœtus, the several organs and systems being taken in order. The account of the Development of the Nervous System is particularly good and complete. Speaking of the differentiation of the cerebral hemispheres he remarks: "By a long-continued tradition it has become customary to describe the process as the sub-division of the primary vesicle into two secondary vesicles designated as the fore-brain proper (Vorderhirn, prosencephalon) and 'tween brain (Zwischenhirn, thalamencephalon). Such a description, however, seems to me hardly justified either by embryology or comparative anatomy, and to be especially apt to mislead and confuse." He proceeds to describe the hemispheres correctly as outgrowths of the primary vesicle.

Professor Minot has introduced a few, but very few, new terms, amongst which we may mention "ectental" ine, "diaderm," "concrescence," and "anlages," the latter term derived from the German and being equivalent to "rudiment." The text is illustrated by a great number of woodcuts, some of which are reproductions of those contained in other, and for the most part original, treatises, whilst others, and the larger number, are from preparations in the author's own collection. The treatise may be strongly recommended as an excellent exposition of the present state of embryological knowledge.

JOURNALS, REVIEWS, &c.

Guy's Hospital Gazette.—A special number of this Gazette dated June 7th has been issued with the twofold object of recording the events connected with the opening of the new medical school buildings, and of drawing attention to the advantages offered by this school to intending students. The article on the New School is illustrated.

The London Hospital Gazette.—The issue of this Gazette for June is perhaps one of the best that has yet left the hands of the editors. The opening article, "Esprit de Corps," contains some sound advice, and the humorous contributions are good, from that of the woman who "'ad digestion of the lungs and amenia" to the note concerning clerks and dressers, which among other advice advocates the good plan that the clerk or dresser who arrives earliest should fill in the names of his colleagues in the attendance book, as custom speaks favourably of the system. Medical students who are cyclists will heartily enjoy the article on the Surgery of the Pneumatic Tyre, wherein are set forth the appropriate treatment for punctures and the symptoms which suggest operation.

The St. Thomas's Hospital Gazette for June is more serious in its matter, but will be universally appreciated by students of the Hospital. There is an illustrated description of the new athletic ground at Chiswick, "the promised land which so many generations of students have hoped for and departed without seeing," which has now been entered into. Dr. T. D.

Acland concludes his interesting paper on Compulsory Vaccination.

St. Bartholomew's Hospital Journal, like the foregoing, presents to its students rather solid fare. The subject of headaches is treated by Dr. Gee, and Tropical Diseases is the topic discoursed upon by Dr. W. H. Maidlow in his second contribution concerning the Ship's Surgeon and some Tropical Diseases. Mr. H. J. Walton, in A Plague-Wallah, incidentally mentions that the purdah, though designed with the object of concealing the loveliness of maidens who might otherwise be the object of evil design by the "Kafir," often leads the fair ones into trouble, as, thanks to the extremely limited range of vision which the eye-holes afford, the ladies are constantly falling between the railway carriages and the platforms. There is also a report of the paper read before the Abernethian Society by Dr. James Morrison on the Treatment of the Puerperal Uterus.

HOLIDAY PUBLICATIONS.

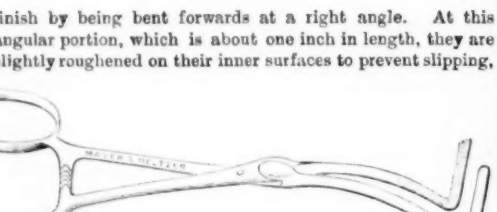
The London, Chatham, and Dover Railway Company's *Guide to Paris* presented gratis by the company will be found a most useful little companion for a visitor to Paris. The sectional street plans are on a large scale and very clearly printed. It also contains a useful list of the sights to be seen, prices of public conveyances, &c.

Summer Holidays in North-East England. London: Walter Scott, Ltd. Price 1*s.* 6*d.*—This is really a series of photographic illustrations of picturesque places in North-eastern England with short descriptive letterpress. There is certainly a comparatively unexplored field of beauty in this region, and intending holiday makers cannot do better than consult the pages of this book.

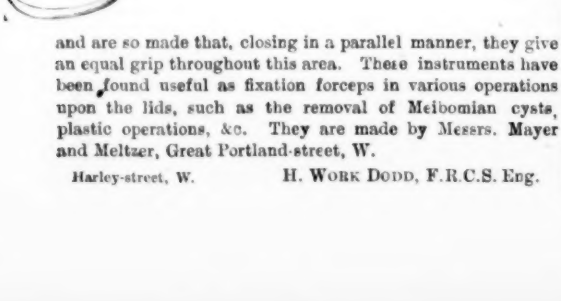
New Inventions.

NEW PALPEBRAL FORCEPS.

THESE forceps are made in two varieties, one with bow handles and step-catch fixation, furnished with the anti-septic joint; the other like the ordinary spring forceps. The blades are slightly curved backwards in their course and



finish by being bent forwards at a right angle. At this angular portion, which is about one inch in length, they are slightly roughened on their inner surfaces to prevent slipping,



and are so made that, closing in a parallel manner, they give an equal grip throughout this area. These instruments have been found useful as fixation forceps in various operations upon the lids, such as the removal of Meibomian cysts, plastic operations, &c. They are made by Messrs. Mayer and Meltzer, Great Portland-street, W.

Harley-street, W. H. WORK DODD, F.R.C.S. Eng.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY MEETING of the Council was held on July 8th, the President, Sir WILLIAM MACCORMAC, Bart., being in the chair.

The PRESIDENT reported the result of the meeting for the election of members of the Council, as recorded in THE LANCET of July 3rd, and he further stated that Mr. Watson Cheyne and Dr. Ward Cousins, being fourth and fifth on the list of the successful candidates, would be the substitute members of Council for the late Mr. Oliver Pemberton and the late Mr. Walter Rivington respectively.

Mr. Howse, Dr. Ward Cousins, Mr. Owen, Mr. Godlee, and Mr. Watson Cheyne were introduced, and made a declaration in the terms of the oath prescribed by the Charter of 1800, and took their seats as members of the Council. A vote of congratulation to the President and to Sir Thomas Smith on their receiving the honour of a baronetcy was passed.

The President reported the proceedings of the half-yearly meeting of Fellows on July 1st, as already published in THE LANCET of July 10th.

The Council proceeded to consider what reply should be sent to the memorial in reference to medical aid associations from Fellows and Members of the College practising in and about Plymouth, Devonport, and Stonehouse. It was resolved: "That the memorialists be informed that the Council are of opinion that the disciplinary powers provided by Section XVI. of the by-laws do not entitle them to question the legality of Fellows and Members of the College holding the appointment of medical officer to medical aid associations such as those referred to in the memorial, and the Council cannot therefore endorse the refusal of any Fellow or Member of the College to meet in consultation (particularly in urgent cases) registered practitioners when acting in conformity with their legal rights." It was also resolved that similar replies should be sent to the Norwich Medico-Chirurgical Society and to the Beckenham and Penge Medical Society.

The Council having learned that a medical man had falsely described himself as a Member of the College resolved to instruct their solicitor to institute legal proceedings against him.

A letter dated July 5th was read from Dr. R. R. Rentoul enclosing for the consideration of the Council a copy of his draft Bill for the Registration of Midwifery and other Nurses. The draft Bill was referred to the President and Vice-Presidents for consideration.

A letter was read from Sir William MacCormac stating that in anticipation of the expiration on August 1st next of his period of office on the Court of Examiners, he desired to place his resignation in the hands of the Council to take effect from the end of the Pass Examination for the Membership to be held this month, and that he was not a candidate for re-election. This vacancy, and that resulting from Mr. Davies-Colley's resignation, will be filled up at the next ordinary meeting of the Council.

The following professors and lecturers were elected for the ensuing year:—Hunterian Professorships: Henry Morris (The Surgery of the Kidney), Frederick Gymer Parsons (The Muscles of Mammals), and Charles Stewart. Arris and Gale Lectureship: Thomas Grigor Brodie (The Place of Formation and Chemical Properties of the Antitoxins). Erasmus Wilson Lectureship: Holburt Jacob Waring (The Pathology and Treatment of those Diseases of the Liver which are amenable to direct Surgical Interference).

Sir William MacCormac was unanimously re-elected President, and Mr. Alfred Willett and Mr. H. G. Howse were appointed Vice-Presidents.

The next meeting of the Council will be on July 29th.

THE SWANSEA HOSPITAL.—The annual report of the Swansea Hospital, which has been recently issued, shows an adverse balance of £766, although the institution is most economically worked. The sum of £805 was received from extraordinary sources during the year, as compared with £1727 in the preceding year.

THE LANCET.

LONDON: SATURDAY, JULY 17, 1897.

THE holiday season is once more at hand, and once again we must repeat that the true holiday is that which occasions no strain and no anxiety. "Drive" is the curse of this century. We have lost the sense of repose. The capacity of passive contemplation has been preserved only by oriental peoples. We suffer from the exaggeration of the activity which has made our greatness as a nation. We are punished by the vice of our virtues. New diseases have arisen, or perhaps it would be more correct to say that diseases which were rare are now common, and these are almost all attributable to the extraordinary strain entailed by the modern exigencies of the struggle for existence. Great fortunes are amassed, terrible poverty follows in their trail, the "submerged tenth" appear as BANQUO'S ghost at the feast of the prosperous. Those who succeed have ever before them the alarming spectacle of innumerable failures, of unfathomable suffering. The poor suffer by reason of their poverty and the wealthy by reason of the dangers which menace their situation. Safe investments bring in hardly any interest, and where the interest is high the risk of loss is ever present. This it is which occasions the strain and causes what is colloquially called "driving." We now try to do in a few hours an amount of work which our forefathers leisurely accomplished in a much longer time. Mechanical contrivances, railways, the telegraph, the telephone, the bicycle, all conspire together to make us hurry in every detail of life, to leave us no time for reflection, to compel us to prompt decisions. Therefore, the strain of intense concentration is necessary so that we may be able to decide in a moment what in former times we might have contemplated at leisure and settled after calm deliberation. Among the working classes, though the hours of labour in the leading trades have been considerably reduced, it is found that the output on the whole has been greatly increased. This is not only due to improvements in machinery, but is also the result of the greater intensity of application. Machinery is very expensive and consumes much coal. The competition among the working men, as among the commercial classes, is most keen. To be secure in his employment—for there is the vast army of the unemployed outside ever ready to take his place—the workman must obtain from the machine he controls the maximum possible output in the minimum time. Hence the sense of "drive," which has enabled the chariot bearing British industry so often to win the race, though the victorious horses have so overstrained themselves as to sink prematurely to the grave.

While that class of disease due to bad sanitation is becoming more and more scarce in our midst, those diseases that result from nervous exhaustion are becoming more and more prevalent. What, then, under these circumstances, should be the object and purpose of a holiday? The answer is obvious—such rest as will recuperate the nervous system. Therefore, the first consideration is that the holiday shall be absolutely free from all anxiety, that there shall be no hurrying and no effort to do a great deal in a very little time, and that there shall be no competition, no rivalry, no attempt to excel or to outdo others. Unfortunately, the spirit of competition has spread even to our recreations. Medical evidence reaches us from all sides as to the injurious effects of injudicious and reckless bicycle riding. So in other out-door sports and athletic exercises recreation is converted into labour and pleasure into pain. Instead of playing to win health, how many play only for the satisfaction of beating a fellow player? Thus after over-straining themselves in work and business they over-strain themselves at play. Nor is this the only form of rivalry in recreation. The very mapping-out of a holiday excursion is often a deep-laid scheme to outshine a neighbour. During the whole winter the neighbour in question has described at various social gatherings the wonderful tour he and his family made last year in—let us say—Switzerland. His envious hearers have never been further afield than Margate or the Isle of Wight. They must now not only do as well, but even better. They will go further and see more. If the neighbour has contemplated the sunrise from the Rigi, they must at least look down the crater of Mount Vesuvius. Thus a lengthy journey is undertaken, involving expenses that are often beyond the financial means of the family, to see sights in which they take no real interest, but simply and solely because they want to do at least as well as, if possible better than, other acquaintances in their particular circle of friends. Such holiday tours entail a continuation of the strain and of the anxieties that are the inevitable concomitants of modern business. As the expenses must be limited, each town and each sight must be seen with undue haste and in a manner that causes unhealthy fatigue.

Of course, all action engenders reaction, and there are not a few families who seek to satisfy their self-esteem by proudly declaring that they will not allow themselves to be carried away by any such folly. They will not go to any fashionable place whatsoever. They will not brave the discomfort and fatigue of any continental tour. They will go to some utterly unknown country village, a long way from any railway line, where they will be topographically divorced from the life of great towns and from the noise and rush of both business men and holiday folk. This all sounds very wise, sedate, and reasonable. But we must not forget that habit is a second nature. For holiday-makers to be in a village where it is impossible to buy a newspaper; where postal communications are more difficult than if they were ever so far away on the continent; where there are no shops; where none of the comforts and luxuries to which they are accustomed can be purchased; where there is but one butcher, who only kills once a week, and where even the bare necessities of life are difficult to obtain, is a condition of existence which does not always engender that sense of contentment and perfect rest that characterises a healthy holiday. This, again, is not the ideal. All the habits of life are not to be thrown away by the mere hailing of a cab and the booking to the station nearest to some forlorn village. The chances are

that the holiday seeker will in a few days weary of his solitude. He will find his ordinary troubles replaced by the trouble to get something like the food to which he is accustomed and some sort of occupation that will satisfy his mind. The dweller in a great town does not realise how much he depends on the surrounding conveniences and civilisation. When he is suddenly cut off from all these the change is too great and sudden, and there is but little enjoyment in it.

What, then, is the ideal holiday? Fortunately, this cannot be stated in a sentence or even in a volume. If it were so easily described then everyone would want to do the same thing and go to the same place, and this would be a material impossibility. But what we have said can serve to indicate the principle that should govern the plan of the holiday. We suffer from excessive competition, from the "driving" which produces the nervous exhaustion that constitutes the most characteristic symptom of the nineteenth century. There must, therefore, be no competition, no feeling of rivalry with other holiday seekers, and no desire to boast on returning of the wonderful things achieved. If we play we must play for the sake of health and pleasure, but our pleasure must not be found in the pride of excelling someone else. If we walk, or cycle, or climb, or row, or run, we must do so because we feel inclined to take such exercise, because it agrees with us, and not because we want to go farther or quicker than someone else. There is, we repeat, too much competition in business; therefore there should be none in pleasure. Where fatigue commences pleasure is apt to pall and health to suffer. But while thus economising the physical forces of the body we must be equally careful with regard to those of the mind. To save the brain and the nervous system the holiday must be so managed as to involve no financial strain. Its pleasures must not be darkened by the thought that too much money is being spent. We must not attempt more than we can easily afford, for the object of the holiday is rest, and there is no rest where money troubles threaten. Bearing these general principles in mind, it is for each individual to select that form of holiday which is most in keeping with his means, his tastes, and his proclivities.

No result of the late Jubilee celebrations is likely to be more lasting or more important than the feeling of friendship, mutual admiration, and mutual esteem which it has brought about between Great Britain and her colonies, among which a deservedly high place must at once be accorded in respect of patriotism, public spirit, and enlightenment to Australia. If Cape Colony has presented us with a battleship, it must not be forgotten that Australia, ten years ago, undertook to defray jointly with us the expenses of the Australian auxiliary squadron. To our colonies we send the most enterprising of our sons, and Australia in particular gives them a warm welcome; and from Australia, when they have won prosperity, they return to the old country with less readiness than from any other adopted home. There is something in the life, whether in town or the country, that fascinates them, and they remain. Australia, however, is a large continent, and if we cannot include every portion of it in our praise we do not condemn it as a whole on account of the delinquencies of what may not be one of its most important factors, for, as a matter of fact, just at the present moment Perth, the capital of Western Australia, is certainly not a conspicuous example either of patriotism, public spirit, or enlightenment in respect of matters of vital importance to the health and prosperity of its citizens and to the reputation of the colony.

It is true, we understand, that those who spend the public moneys entrusted to them by Perth citizens are endowing the township with public printing-works, with a mint of palatial design, and with an observatory, while a project for zoological gardens has been mooted; but although commending the desire to study other worlds implied by the observatory, we would suggest that Perth should observe its own condition and look elsewhere without requiring the aid of astronomical telescopes for the true paths to self-improvement. Perth at this moment is being seriously devastated by an epidemic of typhoid fever, and, setting aside private sources of information, if only a small fraction of what we learn from the local press is correct there seems no reason why Perth should not continue to be devastated for an indefinite period by typhoid fever or by any other epidemic that may once get a hold upon its people. Of the attack now raging suffice it to say that in one week there were fourteen deaths from this disease alone. The causes directly responsible for the condition of Perth are evident. The city has no efficient drainage system—no system at all, we believe, according to modern ideas; it has a water-supply not beyond suspicion at its point of origin, and liable to every kind of abominable defilement in and near the town; while its milk-supply is equally open to criticism. Concerning this last, the rigour of the supervision accorded to it, as well as its unusually intimate connexion with the water-supply, may be judged from cases detailed in the *Perth Morning Herald* of milk being sold containing 50 per cent. and more of added water, while the back yard of a deserted "dairy" was found to contain traces indeed of a cow, but stacks of empty condensed-milk tins! There is no record that the milk-dealers in these cases suffered any penalty or were even prosecuted for their share in the work of endangering human lives. With regard to drainage, the system which the city fathers of Perth appear to permit for the disposal of the natural refuse of a growing town is perhaps the system suggested by the naturally porous soil of the locality, but it is also primeval and primevally dirty. "Dry-wells" is the term applied to pits which are neither wells nor dry, but are simply holes in the sand into which every form of refuse, more or less liquid, is collected, until the solid or greasy constituents of the refuse, instead of running away, begin to coat the walls, which thus become impervious. Then the "dry-well" is boarded up and another is dug near by. More solid refuse, including fæcal matter, is carried to some distance from the city, and either buried at a small depth in the sand or treated in a place called euphemistically (or satirically) a "sanitary reserve," where some sort of burning is practised in the case of anything that will burn easily.

What will happen, we should like to know—and we advise the ratepayers of Perth to ask themselves—when the whole of the sandy area within reach has become so impregnated with filth that it will hold no more? Probably those in

authority are satisfied that "sufficient unto the day is the evil thereof." In this, in a sense, they are right, for the evil of Perth's insanitary condition would seem to have reached a point at which it will take many days to stay its course; but such an amiable policy of hope and trust must not be persevered in. The most elementary rules, not only of sanitation, but of decency, are being disregarded. Matters have reached a pitch at which the cleansing of back yards and the providing and emptying of privies are mere details. What is wanted is a complete and effective system of drainage, a code of sanitary laws, and a strong and independent body of men to enforce them. We do not insult the intelligence of Perth citizens by explaining that manure in a liquid form will percolate through sand and defile water springs, and that a heap of it lying exposed in a solid state will pollute the air. We do not suppose that they are blind to the fact that such things may cause and spread disease, and that in civilised towns, from motives of safety as well as for reasons of æstheticism, such methods of drainage are as obsolete as the indifference that permits them. But we do take it upon ourselves to advise Perth to get something done and done quickly. Perth has much in its favour in the way of situation, while it is a city of modern origin, and belonging, as it does, to a go-ahead colony, should be ready to employ all the necessary appliances now at the command of the modern sanitarian. Perth has, moreover, a brilliant example comparatively near to it if what we hear of Coolgardie, that most recent of mining centres, is true. At Coolgardie every effort seems to be made to overcome the natural difficulties that beset sanitation and local government in a new and necessarily rough-and-ready community. What Coolgardie can do surely Perth can do, and we look to public-spirited citizens to ensure that an early start is made. True public spirit will postpone the erection of observatories, mints, and even printing-houses, and will taboo the establishment of zoological gardens until the life and health of the city has been safeguarded. True public spirit is just before it is generous. It will disregard the fact that sewers are costly without being showy on the surface. It will support its sanitary officers through thick and thin, without studying the favour or disfavour of the dirty and ignorant, and it will so build up in the city, in the inhabitants of which it is found, memorials of nineteenth century progress worthy to rank with any of the more visible monuments of Jubilee loyalty and enthusiasm.

THERE is no one who will not have read with the greatest satisfaction the righteous sentences pronounced last week by Mr. Justice HAWKINS upon five scoundrels convicted of blackmailing. Three of them, GRANT, COULTON, and THORPE, had terrorised and unhinged the mind of their miserable victim to such an extent that they not only got large sums of money from him, but rendered his life so wretched that his health is probably permanently undermined. Justice, however, though it would seem *pede claudo*, has overtaken them; two have received sentences of penal servitude for life and the third for fifteen years. The other two, who had acted a shade less villainously towards another victim, were punished with ten and eight years penal servitude respectively. These are heavy sentences, yet not one whit too severe, and not so many years ago the legal punishment for this class of offence was death.

Blackmailing is, we regret to say, a crime essentially human, and, more than that, one belonging to the higher civilisation. The primitive man if he wanted his neighbour's goods or his wife simply took them; if his neighbour resisted he hit him on the head or was himself killed. It was the recognised method of procedure—one that everyone was liable to and one that men shared with animals; but with advancing refinement the bestial element was eliminated, and that side of human nature which theologians say is derived from the great Accuser came to the fore, and instead of entering into a brutal fight, where very possibly he might come off second best, the refined blackguard said to his victim, "Unless you will give me so much I will render your life utterly wretched; I will accuse you of nameless crimes; friends, position, honour will all slip away, and you will pray for death as a release." The criminal of this class is a keen judge of human character, and selects his victims with great care, so that he has two advantages on his side. First, the fact that there are a certain number of persons who are so dumbfounded by an accusation of this sort that though they may know it to be utterly false, yet they have not the courage to fight against it; secondly, the fact that there are perhaps few persons in the world who have not got a skeleton of some sort in the cupboard which they would rather not have exposed to the eyes of others. And so the weak-minded man is led to give way in the first flush of terror and disgust, thinking to stave off some disgrace—he knows not what—until the penalty for silence gets heavier and heavier and his life more and more miserable, when he at last does what he should have done at once, seeks the aid of the law and, as in the two cases upon which we comment, stands up in court before the eyes of his fellows a man of unblemished character.

We are led to dwell upon these particularly odious crimes because they have a special interest for us as members of the medical profession. Of all professions ours is the one most open to attacks of this kind; charges are constantly made against medical men which are most easy to bring and equally hard to refute, although we are glad to say that those against whom they are brought almost invariably act so that the matter is fought out in court. At first sight it might often seem worth while for a medical man to submit to blackmail; legal proceedings are very long, always expensive, and in cases of this sort not particularly pleasant for the defending side. Small wonder, then, if the busy practitioner is sometimes tempted to buy silence at the price demanded. It is a temptation, however, to which he rarely yields, for he knows very well that the blackmailer is a very vampire who returns time after time until he has drained his victim dry so that unless he is met and fought at the outset he becomes more and more difficult to shake off. Everyone should remember this point and medical men of all others, for their honour is their very existence; and if they have not time, or think that they have not, or are too poor to battle single-handed, there is an easy way out of that difficulty—namely, by joining one of the societies organised for medical defence. Let anyone read the reports of these societies and he will see that in nine cases out of ten the blackmailer when confronted with the society retires

precipitately from the case. Let no one think either that on account of position, or age, or experience, or the nature of his practice he is exempt from the danger of attack. "*Hodie tibi, cras mihi*," is the motto for every one of us, and no one knows whence the bolt may fall. The medical defence societies are doing good work even with the small amount of power they possess, but we must wait and strive until our own profession is as united and as well organised as that of the law. The blackmailing of a lawyer is an unheard-of occurrence; firstly, he is far too alive to his own interests to make such a thing possible; and, secondly, he belongs to a profession the very name of which is objectionable to criminals. Let us, then, as medical men lay down our petty differences, and in so doing preserve for ourselves, not only a living wage, but our honour and reputation. The stronger we are the more wisely and the better we shall be able to use our strength, not only for our own profit and renown, but also for the benefit of the community which we serve.

AN interesting Blue-book has recently been issued by the India Office entitled "Further Papers relating to the Outbreak of Plague in India." Amongst other matters which it contains there are details of a number of experiments as to the results of the inoculation of preparations of different grains, &c., such as wheat, flour, rape-seed, &c., with cultivations of the plague bacillus; and the Governor-General of India in one communication states that during the sittings of the Venice Conference in March last the Government of Bombay telegraphed to the British delegation to the effect that grain purposely infected did "not permit of the existence of the microbes for more than four to six days." He now adds that the Government of India are advised that the experiments as to this are not conclusive, "since the loss of pathogenic property may be demonstrated without the loss of vitality, so that the bacilli may under favourable local conditions, re-acquire toxic properties." Points such as these have high scientific interest; but we cannot help thinking that when the question arises of announcing such possibilities in connexion with matters of trade and commerce, which are of vital importance to India and even to our own country, it would be better to wait until some measure of certainty had been attained. Nearly all measures of restriction which have turned out to be useless in practice have been based on theories involving possibilities as distinguished from certainties. It is, indeed, extremely doubtful whether a carefully designed laboratory experiment in which a given microbe is purposely inoculated into specially contrived preparations of a certain article finds any real counterpart in ordinary trade transactions carried on by persons who are presumably in health; and the fact remains that notwithstanding these experiments no case or cases have been known in which the abundant exports of grain from Indian or other plague-infected ports have been identified with, or even reasonably suspected of having been followed by, the production of plague.

Another similar matter was, according to the Blue-book, brought under the notice of the Local Government Board by the India Office. The latter department, whilst awaiting the results of experiments in India as to "the behaviour of the plague microbe in wool," desired to know, in the interests of certain British manufacturers, if the scientific advisers of the Local Government Board could express an opinion whether bales of wool from Bombay or Karachi would carry risk of plague to people who might handle the wool in England. Here again the question arises as to whether laboratory experiments and intentional inoculations can be interpreted in such a way as to apply to trade processes carried on under ordinary circumstances and with presumably healthy people. The whole history of plague in Alexandria and elsewhere is entirely opposed to the theory of the disease being conveyed by goods which are dealt with as articles of commerce; and thousands of bales of cotton, for example, have been regularly delivered in European ports from plague-infected ports, and even by means of plague-infected ships, without the occurrence of plague in the ports of arrival or amongst those dealing with the cotton. And we cannot but feel that evidence of this sort should altogether outweigh the discovery, after a certain number of days, of the plague bacillus in a given sample of cotton which had been purposely inoculated with it under laboratory precautions by an expert bacteriologist.

We are, therefore, in no way surprised to find that the India Office were informed that the medical officer of the Local Government Board was not aware of any evidence to show that there was danger to the United Kingdom merely because of the arrival of bales of wool from ports where plague was prevalent, and that, in his judgment, the discovery of the plague bacillus after a certain number of days in an article that had been purposely inoculated with that bacillus ought not to be regarded as affording proof that the article in question, whether it be wool or any other substance, was likely in the ordinary trade processes to convey that infection. This was the attitude which was adopted by the British delegates at the Venice Conference, and it very largely aided them in carrying their point even in the face of suggestions of possibilities based on laboratory work and intentional inoculations. As a result trade and commerce will be but little hampered by the conclusions embodied in the Venice convention; and hence we should be sorry to see suggestions bearing in an opposite direction emanating from one of our own dependencies. When we have proof that trade processes involve danger, then will be the time to restrict those processes, and, in the meantime, we should prefer to see the results of bacteriological work in laboratories discussed apart from the question of such trade operations as are concerned with imports and exports.

Annotations.

"Ne quid nimis."

THE PLAGUE IN POONA AND THE LATE OUTRAGES.

THE more we learn of the facts connected with the late tragedies at Poona the more strengthened we feel as to the substantial correctness of the position we took up last week in regard to the recent events in India. There is, and there can be, no desire on the part of either the authorities in India or of this country to stifle any fair criticism or apply "the closure" to any reasonable, if mistaken, expressions of disapproval in regard to themselves or

their acts. The natives of India generally are a docile and law-abiding, but an ignorant, excitable and highly credulous people, among whom public opinion, as we understand the term, has no existence, and the masses are consequently very much at the mercy of a disaffected minority, who utterly disregard the truth or accuracy of any statements they may make. It would be absurd and unjust to say that there are not numbers of intelligent, educated, and philanthropic Hindoos and Mahommedans in the country, for, as everybody knows, there are. We are not speaking of such as these, but of the masses of poor natives who are ignorant, superstitious and credulous, and conservative to a degree, and they make up a highly inflammable material if only the right kind of match be applied. Poona, the capital of the Deccan, is a well-known hotbed of disaffection, and the application of the necessary hygienic measures for dealing with the plague afforded an opportunity to the disaffected classes to indulge in all kinds of misrepresentation for the purpose of prejudicing the Government authorities and inflaming the fears and passions of the native races against them. The search parties consisted of native as well as European troops, and natives were invited to take part in all that was done—officers, medical and military, female medical practitioners, and nurses lent their aid; and it is inconceivable that under such circumstances any of the alleged outrages on the part of soldiers could have taken place; nor did any revengeful acts on the part of the native population occur at the time or immediately afterwards. It was not until time had been afforded for the fabrication of maliciously false reports that any vindictive spirit was exhibited, and that is always the danger in India. But there is no reason for people in this country "to lose their heads" on the subject. It is not the beginning of a fresh mutiny—indeed, there is not the necessary native organisation for creating one on any large scale, although manifestations of ill-feeling against our government must always be regarded with thoughtful suspicion and some possible anxiety. If we really believed that the natives of Poona had any just cause of complaint they would have our sympathy and support, but all the independent reliable evidence is to the contrary effect. The professors attached to Indian colleges who are now in this country should be prepared to substantiate their charges or take the consequences; at least, so it seems to us. The measures adopted for the suppression of the plague in Poona appear to have been eminently successful; but, notwithstanding all the care and consideration that may be bestowed, their application must, we fear, be always unpopular and distasteful. Still, we should spare no effort to do all we can to avoid wounding the religious susceptibilities and caste prejudices of the native population. India has been sorely tried of late by plague, pestilence, and famine, followed by earthquake; and it is quite possible that an ignorant and superstitious people may regard these as so many signs adverse to our rule.

KISSING THE BOOK.

ON July 5th Sir Walter Foster repeated his question in the House of Commons as to the English form of oath, and asked the Attorney-General whether it was his intention to make any proposals for amending the law so as to abolish the objectionable practice known as "kissing the Book." Sir Richard Webster repeated his reply that the sanitary objections to the present method of administering the oath had in his opinion been somewhat exaggerated. He also expressed his personal belief that the option of swearing in the Scotch form, which is becoming every day more generally known, was sufficient. He added in conclusion that it was not the intention of the Government to amend the law, at any rate during the present session. On the first and second points we must observe that the danger of infection is a matter not of opinion but of fact, whether we regard the risk as conveyed by the Book from mouth to mouth or as a mediate form of contagion in cases of epidemics. In the epidemic of small-pox in Warrington some years ago a solicitor, fearing that he might be infected by a previous witness from an infected house, claimed to be sworn with uplifted hand, but was refused permission by the county court judge, who was ignorant that in doing so he was violating the law and depriving the witness of his just rights. More recently in the epidemic of small-pox at Gloucester some jurors objected to kiss the book on similar grounds, and were permitted to swear with uplifted hand. Notwithstanding these exceptions, and the fact mentioned by Sir Sherston Baker, Recorder of Barnstaple, that there is no legal authority extant for kissing the book, it is still, we assert, practically compulsory on the large majority of witnesses, most of whom are wholly ignorant of the Act of 1888 and its fifth section; while of the few who know it only a very few claim the privilege, owing to an intuitive dislike to be singular and to give trouble. Sir Richard Webster is also reported to have stated that notices had been placed in all courts showing witnesses the provisions of the Oaths Act, 1888, which permits them to take the Scotch Oath. This is a fact of which we were wholly unaware. As the assizes are now being held throughout the counties of England and Wales it will be interesting to ascertain the result of this publicity. Apart from the question of infection the English form of oath stands condemned as an uncleanly mode of adjuration; it has also been condemned by an eminent English judge as being wholly unintelligible to children, and, he might have added, to many adults. Those who respect the religious sanctity of an oath have condemned it as wanting in solemnity. During a period of twelve years we have repeatedly urged its abolition and the substitution of the Scotch form as the uniform mode of adjuration. It remains now to be seen whether the public, guided by the press, will recognise the desirability of this reform.

FRACTURE OF A VERTEBRAL ARTICULAR PROCESS.

IN the June number of the *University Medical Magazine* of Philadelphia Dr. John K. Mitchell publishes a case of this very unusual injury. A woman, aged thirty-two years, in moving backwards stepped with her left foot into a hole and wrenched her spine in the effort to recover her balance. The spine, especially in the lumbar region, became very tender, and she suffered from sciatica in both legs so severely that the operation of stretching the nerve on the most painful side—the right—was performed, but without relief. Five years after the injury she was still suffering from paroxysms of pain accompanied by twitchings and involuntary movements of the legs, especially if she lay on her back. For months she had to sleep propped up, in order to prevent them. Movements, such as rising, bending, especially to the right, standing on the right foot, or walking on an uneven surface, caused distress in the cervical and lumbar regions and in both sciatic nerves, especially the right. The knee-jerks were diminished, especially the right. From the waist down the whole spinal region was very sensitive, and on the right side, at the level of the third and fourth lumbar vertebræ, was a spot so exquisitely tender that it could not be touched without the patient crying out. An exploratory operation was performed by Dr. J. William White. The patient was placed in the prone position and an incision made over the spinous processes of the third, fourth, and

fifth lumbar vertebræ. The muscles were dissected first from the right and then from the left side of the spinous processes. Nothing abnormal was found. On inserting the finger, however, along the lateral aspect of the superior articular process of the fourth lumbar vertebra in order to reach the intervertebral foramen, a piece of rough bone, a portion of the process, broken off and displaced forwards, was felt. Enough periosteal attachment remained to prevent necrosis. The fragment was removed partly with the gouge and partly with the curette, care being taken not to injure the nerve. The patient was relieved at once by the operation. Next day her bed could be shaken vigorously, although she had formerly experienced agonising pain on the slightest movement. Complete recovery followed.

AN ANCIENT GREEK HEALTH RESORT.

THE ancient Greeks, at all events after heroic times, were not always in the aggravatingly robust state of health that is the popular idea of their condition. Human nature is very much the same all the world over and at all times. There were many health resorts where sufferers were treated by Asklepios himself or more frequently by his qualified assistants—i.e., the priests, and the *modus operandi* at these institutions formed the subject of a very interesting lecture by Miss J. E. Harrison, recently delivered before the University Extension Society. The lecturer gave an account of what was perhaps the earliest known medical school—namely, that of the centaur Chiron. Here the children of the heroes were taught simple surgery, riding, gymnastics, the rudiments of music, and, in common with the ancient Persians, to speak the truth, the last being a branch of education which has fallen into disuse among both nations. The chief subject of the lecture was, however, the shrine at Epidauros which has recently been excavated and is in fairly perfect condition. The temple and the long corridors where the patients slept are all there, but the holy well alluded to in many inscriptions has not been found. Besides these the patients have left memorials of their cures carved upon stones, a very full one being that of a Roman gentleman, and we are able, through the courtesy of Miss Harrison in supplying us with the original Greek, to append a translation. "I, Marcus Julius Apellas, of Idrias and Mylasa, was summoned by the god, as I suffered from a variety of complaints, and especially dyspepsia; and as I was on my way through Aegina he ordered me not to worry so much about myself (*μὴ πολλὰ ὀργίζεσθαι*). When I arrived at the shrine he told me to go about for two days with my head covered up, and these two days it rained. He also prescribed for me cheese and bread with celery and lettuce, to wash myself by myself—i.e., without the help of the shampooer—to drink lemonade made from citrons, to go to the fountains in the baths and rub myself against the wall, to run and do gymnastics, to walk in the portico, and to exercise on the trapeze, to rub myself in the sand and go barefoot. Also before I went into the bath I was to pour some wine into the warm water; I was to shampoo myself, but all the same I had to give an *attic* to the bath man. I was to sacrifice to Asklepios, Epione, and the Eleusinian goddesses, and to drink milk mixed with honey. And one day when I was drinking milk alone he said, 'Put honey in your milk and you will get the bowels open.' And when I implored the god to make me well quickly so that I could get home I had a vision in which he ordered me to rub my body all over with mustard and salt, and I seemed to go down to the springs by the shrine, and a boy went before me with a smoking censer, and the priest said to me, 'Now you are well and you must pay your fees.' So I did as the vision directed, and when I rubbed in the mustard and salt it hurt, but when I washed it off it did not hurt any more, and this happened on the ninth day after I came, and he touched me on the right hand and on the breast. And the day after, as I was sacrificing the flame leaped up and burnt my hand so that a blister came up, but my hand soon got well. And as I stayed on there he told me that anise and oil were good for a headache. I had no headache then, but some time afterwards when I had been studying I had a headache, and I used the anise and oil and the headache disappeared. He also told me to gargle my uvula with cold water (for I had consulted him on this point too), and the same treatment for the tonsils. And he told me to write all these matters down, and so, grateful and restored to health, I went away." The naïveté of this narrative is delightful, but the treatment is eminently practical. Apellas is very like the ordinary patient—the sort, we mean, who, having paid his fee, says, "Oh, by the bye, there's one thing more I want to ask you. I often have," &c.

MEMBRANOUS CONJUNCTIVITIS IN A CASE OF MEASLES.

IN a case recently published by Dr. H. A. Brennecke, this unusual complication, which clinically resembled true diphtheria of the conjunctiva, was observed.[1] The patient was a boy, aged three years, one of a number of patients attacked by measles. He exhibited the usual symptoms of the disease. On the fifth day the urine contained albumin, and hyaline and epithelial casts. The right conjunctiva was markedly injected. Next day this was more intense, and the lower lid was much swollen and showed a heavy white exudation. On the eighth day the upper lid was affected, and there was an abundant milky discharge. On the tenth day the patient was restless and refused nourishment; the back and shoulders as well as other parts exhibited diffuse, irregular, red patches, which did not disappear entirely on pressure. The right cornea was hazy. There were numerous subcrepitant râles in the lungs, and signs of consolidation in the right lower lobe. Death took place on the twelfth day. Repeated examinations of the membrane covering the conjunctiva failed to show the diphtheria bacillus, but a microbe having the characters of the streptococcus pyogenes was cultivated. It was also found after death in the blood and viscera. Dr. Brennecke concludes that the streptococcus was the cause of the membranous inflammation of the conjunctiva. He cannot decide whether the microbe primarily infected the conjuctiva or reached it through the blood from some other source, such as the throat.

METALLIC CHEESE.

IT has been a common theme of congratulation by not a few writers and philanthropists that the days are over when people were poisoned by the indiscriminate practices of the adulterator, and that now they are only cheated. What will be said then of the announcement that both the salts of zinc and lead are used in the preparation of cheese? "Cheese spice" is the delectable name of crystallised sulphate of zinc, which, according to Mr. Allen, the public analyst of Sheffield, is used to prevent the heaving and cracking of cheese. Worse still, Mr. Stoddart, another public analyst, has described a sample of Canadian cheese in which he found metallic lead, and it is probable that the highly poisonous acetate of lead was employed for the same purpose as sulphate of zinc. This is, indeed, a revelation, and vestries and other authorities would do well if they instructed their inspectors to secure samples of cheese with the view of setting this very disturbing question at rest. In old times, when substitutes were not, most excellent cheeses

[1] Medicine, Detroit, June, 1897.

were made which required the addition of no other antiseptic than homely salt, and there is no reason why cheese should require any further treatment now. We trust that the facts brought to light by the two analysts just mentioned will lead to the permanent suppression of such an abominable practice.

STENOGRAPHY FOR THE MEDICAL MAN.

THE *Phonetic Journal*, in congratulating Sir W. R Gowers upon the honour Her Majesty has conferred upon him, naturally refers to his work in connexion with shorthand as well as to its influence upon his medical work. The characteristic of the work of Sir William Gowers is, our contemporary avers, accuracy. "This quality has been fostered by the habit of careful and correct observation. That habit in turn has been helped by the persistent practice of instantaneously recording the observed fact. The acquisition of stenography in his student days, the rapid recognition of its power to help him in his professional studies and in his professional work, the determined mastery of it and the continuous use of it have multiplied his naturally enormous capacity for work, and strengthened and intensified his habits of careful and correct observation." It is a noteworthy fact that another recipient of knighthood on the occasion of the Diamond Jubilee, Sir William Thomson, President of the Royal College of Surgeons in Ireland, is a writer of shorthand and as staunch an advocate of its use in medical work as is Sir William Gowers.

A NEW FEVER HOSPITAL FOR LONDON.

THE ceremony of the opening of the Park Hospital, Hither-green, Lewisham, on Monday last, by the Prince and Princess of Wales, successfully inaugurated the most recent and extensive of the large group of fever hospitals which have arisen under the ægis of the Metropolitan Asylums Board. Of the ceremony itself there is no need here to speak in detail. Suffice it to say that it once more afforded opportunity for testifying to the keen interest and sympathy which their Royal Highnesses evince in all matters that concern the public weal. The speech made by the Prince of Wales struck the right note and showed how fully he recognises the importance to the community of the work carried on by the Board as well as the manner in which the Board is fulfilling its trust. After the ceremony the large gathering of visitors were enabled to inspect the vast range of buildings, which may be taken as representing the most complete and best approved style of construction of an infectious diseases hospital. The site upon which the hospital is built is an elevated one, and is close to the Hither Green Station of the South-Eastern Railway. It consists of twenty acres of ground, and the hospital is intended to accommodate 548 patients, distributed as follows: 48 wards for 368 scarlet fever cases, 24 wards for 120 diphtheria and enteric fever cases, and 36 isolation wards to accommodate 60 patients. The staff will consist of 316 persons, including the medical superintendent, 5 assistant medical officers, matron, housekeeper, 2 superintendent nurses, and 191 other nurses. The ward pavilions are disposed on either side of the central administrative block, each pavilion consisting of two floors containing three wards, access to the upper floor being by an external staircase opening from the covered ways which connect all parts of the building. The architect, Mr. Edwin T. Hall, is to be congratulated upon the admirable manner in which every detail has been planned. The arrangements for heating and ventilation of the wards are in some respects novel and promise to be highly efficient. The water-supply will be furnished by wells sunk in the chalk, the water being pumped into a softening apparatus and thence to the water-tower, which forms a conspicuous feature in the centre of the blocks of buildings. The laundry and kitchens are well arranged, whilst the nurses' home, placed on the northernmost part of the site, consists of three houses connected by glass and iron corridors on every floor. In the important matter of drainage, in the construction of water-closets, lavatories, &c., no detail has been omitted to render the institution free from sanitary defects. The provision of this additional isolation for fever in the metropolis reflects much credit on the Metropolitan Asylums Board, whilst the care and pains taken in the construction and arrangements make this hospital worthy of London and a boon to its inhabitants. In the nine hospitals at present in operation there is provision for 4254 patients. To this will now be added the 548 beds at the Park Hospital, and 520 in the Grove Hospital now in course of construction at Tooting. A convalescent hospital is also to be erected at Carshalton for 700 patients. There will then be accommodation for 6022 fever and diphtheria patients, whilst the hospital ships, Gore Farm Hospital, and a proposed new hospital at Joyce-green, near Dartford, will bring the provision for small-pox up to 1892 beds.

THE INTER-MARRIAGE OF DEAF-MUTES.

A LETTER in another column reminds us that the question of how far acquired deafness is hereditary is a very interesting one to the community and therefore to their medical men. It is an unfortunate fact that deaf-mutes tend, perhaps by a common sympathy or from association during early years, to inter-marry. We say unfortunate, for marriages between congenital deaf-mutes or others with congenital nerve defect tend to produce a family with some members mentally afflicted. It is, however, otherwise among persons of sound brain power, who early acquire deafness as a result of scarlet fever or other accidental disease of the organ of hearing and consequent mutism—the ear, not the brain, being primarily affected. Those who tend to transmit deaf-mutism to their offspring are congenital deaf-mutes, not those acquiring deafness as a result of disease or accident; a man with disease of the middle ear is probably no more likely to have deaf children than a man blind from accident or disease to have children with defective sight. The census record shows that among deaf-mutes the male ratio is much higher than the female rate at each and all ages; and if it is true, as is commonly accepted, that congenital defects are more commonly transmitted to a son through the father, a man whose father was deaf from acquired ear disease in childhood, even if his mother were congenitally mute, is not likely to transmit such tendency to his children. The moral of these remarks is that it is unadvisable to train deaf boys and girls in mixed classes after the age of twelve or thirteen years.

THE HEALTH OF THE ARMY IN INDIA.

A BILL has been introduced into the Viceregal Legislative Council repealing the Cantonment Acts of 1895 and untying the hands of the Indian Government by giving it the same powers in respect of venereal disease that it has in the case of other infectious and contagious disorders. We notice, by the way, that the Ladies' National Association held a meeting at St. Martin's Town Hall on the 9th instant and took up their parable in an opposite sense. As at present, the Government of India is legally empowered to take energetic steps for preventing or limiting the spread of small-pox, cholera, and typhoid fever, but has no power to deal with the more common as well as gravest of all the contagious diseases that can afflict humanity—namely, syphilis. We need not repeat what we have already said on this subject, nor is there any

special reason for further considering it until we are more fully acquainted with the exact nature of the proposals of the Indian Government. The Bill is, no doubt, framed in accordance with the instructions embodied in the dispatch forwarded by Lord George Hamilton to that country, and the Secretary of State's proposals were so studiously moderate in their nature that many people regard them as likely to fall short of what is required for dealing effectively with the evil. Be this as it may, it is unwise to legislate in advance or excess of what is likely to be supported by public opinion. Legislation on such a subject is attended with great difficulties and has many pitfalls for the footsteps of unwary legislators. We can only rejoice meanwhile that something in the shape of an earnest attempt to deal with a terrible evil has been made, and that a very decided and wholesome change has taken place in the state of public feeling in regard to it. That it is absolutely necessary for something to be done to limit the spread of this scourge is generally admitted. The Commander-in-Chief, Major-General Sir Edwin Collen, and the Viceroy of India spoke strongly in favour of the Bill. The Viceroy expressly said that he took his full share of responsibility for the measures which the Government of India proposed to adopt and of which the Bill was a part; and he added that whatever might be thought of the conduct of incontinent persons, no one with a scrap of humanity would hesitate to take any measures in his power to control and check the progress of a disease so insidious and terrible as regards them, and so far-reaching as regards many innocent and helpless human beings. On the score of morality Lord Elgin also considered his position equally clear.

THE ROYAL COMMISSION ON TUBERCULOSIS.

FURTHER sittings of this Commission were held at No. 7, Whitehall-place on July 8th, 9th, and 12th, Sir Herbert Maxwell being in the chair. The following witnesses were examined: Mr. Morgan Hopkin, of Swansea; Mr. Pearson and Mr. Hides, of Sheffield; Mr. Ward, of Middleton, near Manchester; and Mr. Berwick, of Bradford, all of whom represented various butchers' associations, and gave evidence as to direct personal loss from the condemnation for tuberculosis of the carcases of animals which had been bought as apparently quite healthy. Other witnesses called were Mr. Davies, medical officer of health of Swansea; Dr. Harvey Littlejohn, medical officer of health of Sheffield; Mr. Hedley, chief inspector of the Irish Privy Council, veterinary department; and Mr. Sinclair, superintendent of exports for the Victorian Government. This, we understand, concludes the evidence which the chairman proposes to call; but before considering the report he intends, with other members of the Commission, to visit a few towns in the United Kingdom to see the method of meat inspection adopted in them.

POISONOUS "HOKEY POKEY."

As with ice-cream, it is not surprising that there should be considerable obscurity surrounding the composition of that largely-consumed sweetmeat which is euphemistically known as "hokey pokey." Last Tuesday an inquest was held in the Islington Coroner's Court on the body of a child aged eight years. She had purchased some "hokey pokey" in the street. Two days later she died, after suffering from acute digestive disorder and presenting the usual symptoms of irritant poisoning. How long are poisons to be disseminated in the street in this most reckless way? Nearly twenty years ago THE LANCET Commission on the Sanitary Condition of the Italian Quarter,[1] reported how filthy was the environment under which ices were frequently compounded, and if the authorities cannot trace the ingredients to their source, surely they can at least see that the preparation of these edibles (*sic*) are carried out with the strictest attention to sanitary requirements. Every barrow-vendor of ices or, indeed, of any other article of consumption should be registered and compelled to carry his registered number on a metal label like the cabmen and omnibus drivers and conductors. In this way the men dealing out poisonous stuff in the street could be traced, and thus some amount of control over these "itinerants" would be exercised. Some step in this direction is, at any rate, very much needed, especially when the increasing number of deaths from this cause is considered.

[1] THE LANCET, Oct. 18th, 1879.

COFFEE-PALACES AND COFFEE.

MOST connoisseurs have despaired of ever obtaining coffee infusion in England of the fine character and aroma of that prepared on the continent, and especially up country in Norway, but we may at least demand that a beverage that is called coffee should contain a certain proportion of the article the name of which it bears. Otherwise coffee may as well be given up for ever. Yet coffee properly made fills an important place in the dietetic category. It is refreshing and stimulating, with a distinct tendency to arouse from a state of stupor and lethargy. It is, in fact, in this connexion that it is sought, though it may be unconsciously. It is, in short, anti-narcotic. According to recent analyses published in the Proceedings of the Society of Public Analysts, some coffee-palace coffee infusions must be practically destitute of those properties which mark coffee as an agreeably refreshing and stimulating beverage. The average amount of caffeine—the crystalline stimulating principle of coffee—in infusions obtained at several establishments in London showed that instead of containing 10 per cent. of coffee they contained very little more than 2 parts per 100. The result of this shocking attenuation means that the infusion contained only a fourth part (0·026 per cent.) at the most of the proper amount of the valuable and active constituent of coffee which gives the beverage its restorative character. In an investigation made by ourselves[1] we found that an infusion made by adding two ounces of coffee to a pint of boiling water (equal to a 10 per cent. infusion) contained 0·11 per cent. caffeine. Doubtless in certain cases coffee-palace coffee, though attenuated from this point of view, possesses plenty of "body" owing to the balance being made up of chicory, milk, and sugar. But these things are not coffee or in any sense to be considered as compensating substitutes. The customer supplied with such stuff is, in our opinion, distinctly defrauded, and it is time that the Food and Drugs Act was brought to bear upon this system of cheating. A systematic raid on the part of the officials entrusted with the carrying out of the Acts would soon put an end to this fraudulent practice, and the sooner such a measure is taken the better.

FOUR GOOD WOMEN.

ON June 9th last Her Majesty the Queen personally bestowed the decoration of the Royal Red Cross upon Sister Mary Helen Ellis, Sister Mary Stanislaus Jones, Sister Mary Anastasia Kelly, and Sister Mary de Chantal Huddon, "in recognition of their services in tending the sick and wounded." This little ceremony at Windsor recalls an early incident in the history of the development of military nursing, a history which practically belongs altogether to the present reign. The four ladies above mentioned are the survivors of a band of eight Sisters of Mercy who served as nurses during the Crimean War. In October, 1854, five sisters, responding to an appeal of the Right Rev. Dr. Grant,

[1] Vide THE LANCET, July 9th, 1894.

then Roman Catholic Bishop of Southwark, set out from the Convent of Mercy at Bermondsey, and, joining Miss Florence Nightingale in Paris, accompanied that lady to Scutari. A year later another party of three Sisters from the same institution arrived at the big hospital at Scutari. These eight ladies, of whom four now survive, worked under the direction of Miss Florence Nightingale at Scutari and at Balaclava until July, 1856, when they returned to London. They were not, however, destined to return permanently to scholastic work at Bermondsey, for in the same year they were asked to assist in the establishment of a small hospital of fifty beds which was at that time opened in Great Ormond-street for the relief of women and children belonging to that large class of sufferers who, by reason of the hopelessly fatal character of their disease, or on account of the prolonged nature of the treatment which they require, are no longer admissible to the large general hospitals. Under the title of the Hospital of St. John and St. Elizabeth the useful work of this charity, started with the help of the Sisters of Mercy who had been trained as nurses at the seat of war, has been carried on by nurses of the same Order until this day, and three out of the four sisters who have just been decorated by the Queen are still engaged in the administration of the hospital.

THE JUBILEE OF "LE SCALPEL."

THE well-known Belgian medical journal, *Le Scalpel*, published at Liége, has just completed the first fifty years of its existence, during which it has striven, by no means unsuccessfully, to maintain the honour, to cultivate the science, and to advance the interests of the profession in Belgium. Its founder, the late Dr. Festraerts, was a man of great capacity for originating and successfully carrying through struggles on behalf of those whose cause he had made his own, and, like other similar reformers, had often plenty of bitter enemies both in the profession and outside it. The forces that were several decades ago ranged against the *Scalpel* presented many features in common with those which were employed against THE LANCET and its Founder in the twenties and thirties. We congratulate Dr. Dejace, the present editor, on the position his journal occupies and on the energy with which he exposes abuses and seeks to remedy them in the interests of his brother practitioners.

A SAD STORY OF THE SEA.

THE daily press recently contained a report of a shipwreck under circumstances which reveal an amount of inhumanity displayed not only by laymen, but by a medical man, which we are glad to say is exceedingly rare. An English ship laden with sugar was going from Java to Delaware Breakwater, and very soon after leaving Java fever broke out, which eventually attacked every person on board. Eleven deaths occurred, leaving only ten people to work the ship, the second mate being in charge, and he decided to make for Mauritius, but was only able to get as far as Rodrigues Island, where he dropped anchor and, as it is inhabited by civilised beings, naturally thought he would be able to obtain medical advice and other assistance. The island is inhabited by French Creoles, but the governor and the surgeon are said to be Europeans and to be able to speak English. The pilot put off in his boat, and returning spread the report that yellow fever was on board. As no assistance came, the officer in charge, Mr. Rich, determined to land his passengers and crew, fearing that the ship would go to pieces, but on trying to land they were met by the governor and other inhabitants who threatened to fire on them if they persisted in landing. The only thing to do then was to row back to the ship, which they accomplished with great difficulty, and that night the ship was driven on to the rocks and began to break up. The Rodriguans at this juncture were apparently ashamed of their inhumanity and sent a boat manned by the pilot and some blacks which took off the survivors, landing them on a small sandy island separate from the main island and quite uninhabited. Here they were kept for twenty-two days with no shelter but a hut made of leaves, provisions being conveyed by a small boat and landed on the island. They had no medical assistance, but the surgeon put off in a boat after about a fortnight, stopped some distance from the shore, and examined them through opera glasses. After three weeks the monsoon set in and the Rodriguans, fearing that the islet would be covered by the sea, removed the shipwrecked people—now reduced to eight, including a woman and a baby—to the main island, where they were kindly treated for two months. After this they went to Mauritius, where they met with every possible attention. If this story is true we cannot pretend to explain such abominable behaviour. That laymen might be frightened by the occurrence of a possibly contagious fever is perhaps natural, but that any medical man should be so grossly neglectful of his duty is incredible. We are not told to what nationality he belonged, but whatever it is, if the account given be correct, his country has no reason to be proud of him.

COLOUR PHOTOGRAPHY.

IN THE LANCET of Feb. 6th we announced that a photographic process had been discovered by which a picture was produced chemically, with the natural colours to some extent faithfully portrayed. The nature of the process still remains a mystery to the general public, but in an interesting letter published in *Nature* of July 8th Sir Henry Trueman Wood, to whom the inventor has confided the details of his process, gives some assuring particulars as to the genuineness of the method. The selective action claimed by the inventor does, he says, exist, and the colouring matters applied to the photographic print have a certain tendency to attach themselves to those portions of the print which would be of a similar colour had the image been reproduced in natural colours. Further, the colouring matters, when applied in succession, do so combine or react on each other as to reproduce approximately the tones or tints of the original. A special negative or a special print does not appear to be any advantage, and it is satisfactory to learn that the process is not dependent upon purely mechanical operations, but is to some extent a matter of skill. This discovery by M. Chassagne is of great scientific interest, but its development and the particulars of procedure are for the present matters concealed carefully from the public because of the commercial issues involved. It will be important to the medical profession when the discovery becomes patent, since its application to the photography of sections and specimens in surgery and in anatomy should prove of great value.

TYPHUS FEVER AT PEKIN.

THE lately issued volume of the Medical Reports of the Imperial Maritime Customs, China, reviewed in our columns last week, contains a notable contribution to the literature of typhus fever by Dr. Matignon, of the French Legation at Pekin. Considering the hygienic conditions obtaining in that city and the north of China generally, it is not surprising that typhus fever should be endemic and that every year in the spring it should become epidemic. The mortality from it is considerable, but not so great as that from cholera. The European colony is mostly exempt, but the disease is liable to attack the missionaries and members of religious fraternities, who are brought more in contact

with the people than are members of Legation and others. It is mainly upon his observations of cases amongst such communities that occurred in the spring of 1895 that Dr. Matignon has based his studies. His essay gives an excellent account of the characteristics of the malady, together with detailed notes of cases, and it is interesting to find that there were certain notable differences observed between the disease as there shown and the form familiar to Europe. In the first place, the incubation period was much shorter than generally admitted—instead of being about twelve days he found that it seldom exceeded four or five days, and was often not more than twenty-four hours. The onset was abrupt and the fever high from the first, with headache, pyrexial pains, congested face, but less marked prostration than usual. About the fifth day the rash appeared, and, contrary to the exanthem as we see it, was most irregular in its evolution, often taking a week for its full development, and then being profusely scattered over the whole body. The rash had the characters of the rose spots of typhoid fever, and in hardly a single instance did it become petechial, nor was the skin so markedly mottled as it is in the European fever. As regards the type of pyrexia and the date of crisis there does not seem to have been any departure from the western malady but in many of the symptoms there were curious differences. Thus there was seldom seen the intense prostration or depressed aspect so characteristic of typhus fever as we know it. Headache, however, was most severe, and articular pains were a striking feature throughout the attack. Sleep was disturbed; delirium was variable—sometimes somnolence and sometimes a peculiar state of amentia. Deafness was constant and there might be amblyopia. It was noticed that there was a marked tendency to diarrhœa rather than constipation, but one of the most characteristic and serious conditions was the degree in which the heart became affected, the pulse being remarkably quickened and the cardiac second sound reduplicated. Apparently there was not such intense pulmonary congestion as is often met with, nor was albuminuria nearly so frequent. Convalescence was often prolonged, and retarded by abscesses, boils, or, as in three cases related by Dr. Matignon, by more serious sequels, as gangrene of the skin, osteo-myelitis, and periostitis. He observed one case of relapse and also one of second attack, both of which occurrences are rarely met with in Europe. The memoir is one which, from the careful and thorough manner in which Dr. Matignon has studied the clinical characters of the disease, deserves the attention of writers on the subject.

HER MAJESTY THE QUEEN has been graciously pleased to accept a copy of "The Life and Times of Thomas Wakley."

HER MAJESTY THE QUEEN, the Patron of the Order of St. John of Jerusalem, has approved the admissions of Sir Joseph Fayrer, Bart., K.C.S.I., M.D., Hon. Physician to the Queen and H.R.H. the Prince of Wales, Mr. William Fairbank, M.R.C.S. Eng., surgeon to Her Majesty's Household at Windsor and Surgeon in Ordinary to T.R.H. Prince and Princess Christian of Schleswig-Holstein, and of Mr. Norman Hay Forbes, F.R.C.S. Edin., as Knights of Grace of the Order.

THE medical staff and lecturers of the Dental Hospital of London have issued invitations to a conversazione at the Galleries of the Royal Society of British Artists, Suffolk-street, on Tuesday next, July 20th. The prizes for the year will be distributed by Sir Frank Lockwood, Q.C., M.P., at 8 30 P.M.

AFTER the annual dinner of the Hospital Reform Association, which is to take place on the 26th prox., there will be a discussion on Hospital Abuse, more especially with reference to the nature of the remedies that should be adopted. The discussion will be initiated by Dr. Isambard Owen, and Mr. C. S. Loch and others will take part in it.

M. HENRI DUNANT, of Geneva, whose name is well-known in connexion with the foundation of the "Red Cross Society," and who is now unfortunately in very reduced circumstances, has been granted a pension of a thousand roubles annually by the Russian branch of the society.

H.R.H. THE MARCHIONESS OF LORNE and the Marquis of Lorne have kindly promised to open the Passmore Edwards' Convalescent Home for the Metropolitan Hospital at Cranbrook, Kent, on Tuesday next, July 20th, at 4 30 P.M.

THE PRINCE OF WALES'S HOSPITAL FUND FOR LONDON.

VISIT OF T.R.H. THE DUKE AND DUCHESS OF YORK TO THE BANK OF ENGLAND.

ON Friday, July 9th, soon after 1 P.M., T.R.H. the Duke and Duchess of York visited the Bank of England to witness the destruction of the plates from which the stamps issued for the benefit of the Prince of Wales's Hospital Fund were printed. It will no doubt be remembered that as soon as the printing of the stamps was completed the plates were consigned to the strong rooms of the Bank of England under the official seals of the Governor and chief cashier, which were affixed in the presence of several of the honorary officials of the Fund, until a convenient opportunity presented itself for their destruction. At this function H.R.H. the Duke of York, who, as President of the London Philatelic Society, takes a great interest in the matter, graciously signified his willingness to be present.

Their Royal Highnesses, who were attended by Sir Charles Cust and Lady Mary Lygon, on arrival at the entrance in Lothbury, were received by the Governor, Mr. Hugh Colin Smith; the deputy governor, Mr. S. Steuart Gladstone; the chief cashier, Mr. H. G. Bowen; and the acting secretary, Mr. Kenneth Grahame; and also by the following members of the Organising Committee of the Prince of Wales's Hospital Fund: Lord Rothschild, Lord Rowton, Sir Henry Burdett, the Right Hon. C. Stuart Wortley, Q.C., M.P., Sir Savile Crossley, and Mr. J. G. Craggs.

There were also present Mr. J. S. Purcell, C.B., Controller of Stamps at Somerset House; Mr. Thomas de la Rue of Messrs. de la Rue and Co. who carried out the printing of the stamps and who so kindly prepared the design, engraved the plates, and presented them to the Fund free of charge; Mr. G. H. Miles and Mr. Joseph Shaylor of Messrs. Simpkin, Marshall, and Co. the wholesale distributors of the stamps, whose task in dealing with the issue has been anything but a light one; Mr. S. G. Wilkinson of the Oxford Bible Warehouse who have used a very large number of the stamps in their Commemoration Bibles and Prayer-books; and representatives of the various philatelic societies.

The Royal party were at once conducted to the printing department, which they entered by a private passage through the branch bank's office, and where they were met by Mr. W. J. Coe, the superintendent of the department. Passing through the machine-room, where all the account-books of the bank are printed—and where, by the way, is the first machine from which the postal orders were printed, and also a fine Middleton Gripper machine which prints both sides of the paper at once—the Royal party reached the die-sinking department, where the destruction of the plates was to take place. In this room, which is under the charge of Mr. F. C. Smith (who has been in the service of the bank over forty years), all the dies and water-marking plates are designed and made for the bank-notes, postal orders, Indian notes, Exchequer Bills, and any other papers requiring a water-mark; and Mr. Smith takes a pride in showing a paper mould (from which the water-mark is impressed upon the

paper whilst in course of manufacture) of a fine Damascus pattern, the process for making which was patented by his father (Mr. John Smith) in 1849, the mould being shown at the Great Exhibition of 1851.

At the benches in this room were stationed in readiness three expert workmen, each provided with an enormous two-inch file or rubber weighing sixteen pounds, and as soon as the seals of the plates, which had previously been brought from the strong rooms under the charge of the bank officials, had been broken by the Governor, the steel plates were fixed in position on the benches and the workmen set to work with a will to obliterate every line of the delicate tracery constituting the design of the plates. With the powerful tools at hand even the hard surface of the three steel plates from which alone the stamps have been printed soon had to yield, and after about ten minutes or a quarter of an hour's hard work the surface of the plates was utterly defaced. The destruction of the steel plates being complete, the attention of the workmen was then directed to the original matrix and die, the raised surface of the designs upon which, being too hard to be much affected by the powerful files which had been used upon the printing plates, were then applied to a grindstone which stood ready at hand, and in a short space of time the designs were ground level with the surface of the matrix and die. The defaced plates and dies were once again consigned to the charge of the Bank officials.

Their Royal Highnesses then proceeded to the Governor's room, where the official certificate of the destruction of the plates was signed by the Duke and Duchess of York, Mr. H. C. Smith, the Governor of the Bank of England, Mr. J. S. Purcell, C.B., Controller of Stamps, and the following members of the Organising Committee of the Prince of Wales's Hospital Fund: Lord Rothschild, Lord Rowton, Sir Henry Burdett, the Right Hon. C. Stuart Wortley, Q.C., M.P., Sir Savile Crossley, and Mr. J. G. Craggs.

The certificate is as follows:—

"Bank of England.

"Certificate of the Destruction of the Dies and Plates employed in the Production of the Prince of Wales's Hospital Fund Stamps.

"We, the undersigned, hereby certify that the whole of the Dies and Plates used in the production of these Stamps were this day destroyed in our presence."

Here follow the signatures as above.

The Governor of the bank then said: On behalf of the Committee of the Prince of Wales's Fund I beg to thank your Royal Highness and the Duchess for coming here to-day to see the plates destroyed. Perhaps you will kindly certify to those present that you are quite satisfied that no more stamps can be printed from the plates.

The Duke of York replied: It has interested both the Duchess and myself a great deal to come to-day and see the destruction of the dies and plates of the stamps which are issued in connexion with the Prince of Wales's Hospital Fund, and I trust that the remainder of the stamps will be soon sold, as I think there can be no more appropriate souvenir of Her Majesty's Diamond Jubilee than these Stamps.

His Royal Highness added that the defaced plates and dies might form an interesting exhibit at the forthcoming Philatelic Exhibition which he is to open in London on the 22nd inst.

The Royal party afterwards made a tour of the printing department of the bank, where they were much interested in inspecting the details of producing the bank-notes, postal orders, cheques, &c.

THE VICTORIAN ERA EXHIBITION AT EARL'S COURT.

ON Monday members of the press were invited to a private view of the incubators for infants at the Victorian Era Exhibition, Earl's-court. These are exhibited in a building facing the Welcome Club, and divided into three compartments. On one side there is sleeping accommodation for two wet nurses and for Mdlle. Louise Recht, who has been specially trained at the Paris Maternity Hospital to look after debilitated and prematurely born infants reared in incubators. A separate service for this purpose was established at the *Maternité* in 1893, and here some 400 children, born under most unfavourable circumstances, are received annually. On the other side of the building there is a nursery, where the infants are taken to be fed and washed. The public are admitted to the central room, and here they can view the infants lying within the incubators, and are shown how the apparatus is ventilated and warmed and the temperature automatically maintained. The mechanism employed for this purpose has already been fully explained in these columns.[1] Its efficiency is now put to a practical test. Messrs. Coney and Schenhein, who are the representatives in England of this the "Altmann Incubator," invite the criticism of the medical profession, and will supply every possible facility for the fullest investigation. They are ready to take in their charge any prematurely born child, and, apart from the trained nurse and the wet nurses, they have retained the services of two physicians, who attend three or four times a day to watch over the health of the infants. At night the watchman awakes the nurses every three hours so that they may feed the infants, and in the day time the babies are fed, generally from the breast, every two hours. In the nursery there is a small pharmacy, contrivances for sterilising milk, ingenious feeding bottles, and scales so that the infants may be weighed and their progress duly observed. A very large number of persons have already visited this exhibit, including many trained nurses. Much interest is manifested by the visitors. The incubators and the ventilating tubes are silvered, which gives them a bright and cheerful appearance, while the infants within look clean and comfortable, so that altogether it is a pleasant as well as an interesting sight.

It so happens that among the exhibits of the London Hospital to be seen in the main building there is an old-fashioned incubator which serves to illustrate the progress accomplished in modern days. This old incubator is not aseptic, for it is simply a wooden box with a glass lid, nor can the temperature within be automatically maintained. It is warmed by placing underneath three stone bottles containing hot water. Of course, the water becomes cold and the temperature falls unless the attendant is very careful. Nor is there any system for filtering and moistening the air. Instead of breathing pure outside air the infant must breathe the air of the ward or room in which he or she is placed. How all these inconveniences can be avoided will be made manifest to those persons who visit the special exhibit of the Altmann Incubators.

In other respects the exhibits of the London Hospital give a graphic object-lesson of the progress made in medicine, surgery, and nursing. Thus, while Messrs. Krohne and Sesemann show the improved and the new surgical instruments they supply to the London Hospital, there is displayed on a table the somewhat primitive instruments that were used at the hospital at the commencement of the century. Among the comparative novelties are the regulating inhalers for the administration of anæsthetics. Messrs. Krohne and Sesemann have also an improved patent lever spring for correcting the malposition of the great toe, and there is Largiader's apparatus for strengthening the chest and limbs, by which home gymnastics may be practised for the modest cost of 7*s.* 6*d.* Here, also, will be found Messrs. Allen and Hanburys' well-known pharmaceutical preparations, and their surgical instruments, their furniture for operating theatres, nurses' bags, pocket cases, and other things of interest to the profession, together with a patent portable bed-rest.

The London Hospital exhibits present to the public many of the most striking features of a surgical ward. For instance, there is one bed with a dummy figure representing a man who is supposed to be suffering from fever. From a cradle placed over the bed two large metallic trays are suspended containing ice. Rubber pipes travelling from these trays drain off the water to a bucket under the bed. Formerly a number of little buckets were tied to the cradle. These were more easily upset, and as they retained the water the bed was often wet. For the new beds now used the wire spring mattress is fastened to the iron framework and there is no wood whatsoever. But there are fracture boards that can be introduced to harden that portion of the bed where a spring mattress would interfere with the treatment of the patient. Further, all the heads of the beds can be easily lifted off whenever it is necessary to administer anæsthetics. There is also an ingenious method for lifting

[1] THE LANCET, May 7th, 1897.

off the side of a cot, and it slides down a groove perpendicularly to the floor, so that it takes up no room. Then there is a new table on high legs, which passes over the beds, and can be wheeled up to the patient without resting on the bed clothes. The application of a cradle for fractured tibia is shown on a dummy figure, as also the methods employed for hip extension and the operation of tracheotomy. Among the curiosities, the old operating table used a century ago at the London Hospital and Miss Nightingale's carriage which she employed in the Crimea evoke much interest.

In this section the Jubilee Institute for Nurses have their exhibit. They display the bags they carry about with them, and their various ingenious contrivances for extemporising, in the dwellings of the poor, whatever may be required for the successful nursing of the sick. What changes can be thus brought about are illustrated by pictures of the interiors of houses, notably of Irish huts, before and after the nurse's visit.

The Metropolitan Asylums Board, the St. John Ambulance Association, the Army Medical Department, and Messrs. Burroughs and Wellcome (outfits for field purposes) have extensive exhibits in another part of the building. The education department was, from the sanitary point of view, a decided disappointment. We did not, for instance, notice the plan or the photograph of a single schoolroom provided with lateral light or any scientific method of warming and ventilating. There were, however, several pictures of class-rooms where these modern improvements and sanitary principles are utterly ignored. The careful treatment of milk and all its products by the London and Provincial Dairy Company was much more satisfactory. Here fresh milk, strawberries and cream, ices, &c., may be enjoyed by the visitor while contemplating cows and calves contentedly chewing the cud in model stables.

Altogether, though the Victorian Era Exhibition is in the main a pleasure resort, still there are some exhibits of technical interest to members of the profession, so that a small portion at least of the time devoted to a visit may be usefully as well as agreeably employed.

METROPOLITAN HOSPITAL SUNDAY FUND.

WE continue below our record of some of the principal amounts received at the Mansion House, the lists of which have been forwarded to THE LANCET office. The total sum now amounts to £31,000 :—

	£	s.	d.
St. Jude, South Kensington	566	19	5
Church of the Annunciation, St. Marylebone	217	15	9
St. Andrew, Stoke Newington	73	14	8
St. Andrew (Presbyterian), Upper Norwood	53	2	0
Regent-square Presbyterian Church	99	3	8
"F" (a further)	50	0	0
St. George, Tufnell Park	53	7	8
St. Augustine, Kilburn	58	17	9
Putney Parish Church	76	5	9
St. John, Putney	87	6	2
St. Paul, Camden Square	62	2	11
All Saints, Margaret Street	66	11	6
Dulwich College Chapel	67	7	0
Lewisham Parish Church	70	3	3
Highbury Quadrant Congregational Church	78	9	1
Hornsey Parish Church	67	16	5
Christ Church, Gipsy Hill	133	17	6
St. Thomas, Portman Square	74	6	10
Holy Trinity, Upper Tooting	54	3	7
Clapham Parish Church	66	0	0
St. Augustine, Highbury	93	5	8
Trinity Presbyterian Church, Notting-hill	42	11	8
St. Peter, Eltham-road	40	18	9
Bloomsbury Baptist Chapel and Mission	26	17	0
Hammersmith Parish Church and Mission	22	6	6
Christ Church, Mayfair	25	9	0
All Saints, Hatcham	37	6	5
St. Dunstan, East Acton	28	14	2
St. Luke, Old-street	20	1	11
St. Andrew, Stockwell	23	16	5
Wesleyan Church, The Avenue, Blackheath	23	14	0
St. Mary Magdalene, Wandsworth	29	12	6
St. John the Evangelist, Brixton	32	4	11
Holy Trinity, Anerley	30	9	0
St. Matthew, Westminster	22	10	6
Portman Chapel, Baker-street	76	14	7
Highgate Parish Church	70	17	6
St. Peter, Cranley-gardens	442	13	2
Holy Trinity, Sloane-street	247	16	0
St. Alban, Streatham-park	142	18	8
Christ Church, Hampstead	158	0	8
St. James, Clapham-park	146	0	6
St. Margaret, Westminster	242	19	6
St. Anne, Soho	95	17	8
Brompton Parish Church	118	16	10
St. Stephen, Westbourne-park	160	0	8
St. Luke, Nutford-place	131	11	1
St. George, Hanover-square	143	0	7
St. Paul, Beckenham	124	6	11
St. Peter, Kensington Park Road	152	2	5
St. John the Evangelist, Penge	80	0	0
Christ Church and St. Saviour, Ealing	64	19	11
St. John, Blackheath	84	5	3
St. Michael, Blackheath Park	85	5	3
St. Stephen, Wandsworth	72	3	6
St. Paul, Hamlet road, Norwood	88	18	9
Grafton-square Congregational Church, Clapham	53	16	0
St. Matthew, Upper Clapton	53	1	9
Streatham Parish Church and All Saints	80	0	7
All Saints, Blackheath	64	7	7
Chipping Barnet Parish and District Churches	44	12	9
Chapel Royal, St. James's	39	3	0
St. Pancras Parish Church	48	9	7
Gray's Inn Chapel	45	17	7
St. James, Hatcham	68	2	3
St. Anne, Highgate-rise	25	16	8
St. Botolph, Aldersgate	20	17	0
Holy Trinity, Lee	21	10	0
St. John, Upper Norward (part collections)	33	2	7
St. Thomas, Clapton	30	10	9
St. Bartholomew and St. Matthew, Sydenham	178	16	6
Sir Savile Crossley, Bart. (further donation)	500	0	0
St. Michael, Paddington	151	11	1
St. Thomas, Regent-street	27	16	8
All Saints, Shooters-hill	21	5	5
Christ Church, St. Marylebone	35	18	7
Pro-Cathedral, Kensington	23	9	8
St. Mark (Presbyterian), Greenwich	33	18	0
Effra-road Unitarian Church, Brixton	29	17	5
Marylebone Presbyterian Church	48	1	0
St. Mark, Notting-hill	23	1	5
All Saints, Child's-hill	33	14	8
St. Andrew, Westminster	57	17	0
Willesden Presbyterian Church	42	18	1
St. Mary, Spring Grove	36	8	8
Christ Church, Woburn square	22	2	2
St. James, Garlickhithe	22	17	10
Streatham Congregational Church	30	12	9
Downs Baptist Chapel, Clapton	29	13	2
St. Luke, Hackney	27	17	10
High-road Wesleyan Chapel, Streatham	25	6	9
Christ Church, Westminster	30	0	0
St. Andrew, Watford	21	6	8
Eaton Chapel, Eaton-square	42	14	10
Finsbury-park Wesleyan Circuit	26	9	6
St. Mary, West Kensington	39	6	2
St. Paul, Harringay	26	0	0
Christ Church, with St. Barnabas, N. Finchley	24	7	7
Willesden Parish Church	22	6	7
St. John, Ealing	31	3	5
St. Stephen, Westminster	33	0	0
All Saints, Camberwell	32	8	4
Christ Church, Wanstead	22	18	6
St. John, Stratford	20	5	10
St. George, Westcombe-park	26	16	9
St. James, Clapton	25	18	3
St. Saviour, Clapham	24	6	9
Holy Trinity, Islington	21	13	9
Greek Church	93	9	6
Christ Church, Forest-hill	50	9	0
All Saints, Notting-hill	36	2	9
Hendon Parish Church and Christ Church	48	1	0
St. John the Baptist, Hillingdon, and Evelyn School Chapel	30	3	3
Box outside Mansion House	19	7	0

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6790 births and 3192 deaths were registered during the week ending July 10th. The annual rate of mortality in these towns, which had declined from 15·8 to 14·7 per 1000 in the three preceding weeks, rose again last week to 15·1. In London the rate was 15·1 per 1000, and almost corresponded with the mean rate in the thirty-two provincial towns, which was 15·2 per 1000. The lowest rates in these towns were 7·3 in Croydon, 8·7 in Huddersfield, 8·8 in Swansea, and 9·3 in West Ham; the highest rates were 20·0 in Liverpool, 20·6 in Burnley, 21·3 in Salford, and 23·1 in Preston. The 3192 deaths included 504 which were referred to the principal zymotic diseases, against 404 and 409 in the two preceding weeks; of these, 170 resulted from diarrhœa, 143 from measles, 75 from whooping-cough, 59 from diphtheria, 33 from scarlet fever, and 24 from "fever" (principally enteric). The lowest death-rates from these diseases were recorded in Bradford, Bristol, Derby, Huddersfield, and Halifax; while they caused the highest rates in Wolverhampton, Birkenhead, Burnley, and Preston. The greatest mortality from measles occurred in Bolton,

Manchester, Birkenhead, Salford, Burnley, and Preston; from whooping-cough in Burnley, Oldham, and Norwich; and from diarrhœa in Birkenhead, Preston, Liverpool, and Leicester. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 59 deaths from diphtheria included 43 in London, 4 in Burnley, 2 in Portsmouth, and 2 in Liverpool. No fatal case of small-pox was registered during the week under notice either in London or in any other of the thirty-three large towns, and no cases of this disease were under treatment in the Metropolitan Asylum Hospitals. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2885, against numbers increasing from 2380 to 2821 at the end of the ten preceding weeks; 349 new cases were admitted during the week, against 274, 267, and 310 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 142 and 127 in the two preceding weeks, further declined to 116 last week, and were 76 below the corrected average. The causes of 41, or 1·3 per cent., of the deaths in the thirty-towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Cardiff, Leicester, Bradford, and in fifteen other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Salford, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·4 and 18 7 per 1000 in the two preceding weeks, further declined to 17·7 during the week ending July 10th, but was 2·6 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 11·7 in Greenock and 14·3 in Aberdeen, to 22·1 in Leith and 22·6 in Dundee. The 529 deaths in these towns included 23 which were referred to diarrhœa, 20 to whooping-cough, 17 to measles, 10 to "fever," and 7 to scarlet fever. In all, 82 deaths resulted from these principal zymotic diseases, against 69 and 77 in the two preceding weeks. These 82 deaths were equal to an annual rate of 2·8 per 1000, which was 0·4 above the mean rate last week from the same diseases in the thirty-three large English towns. The 23 fatal cases of diarrhœa showed a further increase upon recent weekly numbers, and included 19 in Glasgow and 4 in Edinburgh. The deaths referred to whooping-cough, which had been 16 and 21 in the two preceding weeks, were 20 last week, of which 6 occurred in Glasgow, and 5 in Leith. The 17 fatal cases of measles slightly exceeded the number recorded in the preceding week, and included 9 in Edinburgh and 6 in Leith. The 10 deaths referred to different forms of "fever," corresponded with the number in the preceding week, and included 5 in Glasgow and 3 in Dundee. Of the 7 fatal cases of scarlet fever 4 were recorded in Edinburgh and 2 in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 104 and 86 in the two preceding weeks, further declined to 69 last week, and were 15 below the number in the corresponding period of last year. The causes of 25, or nearly 5 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 21·8 and 20·3 per 1000 in the two preceding weeks, rose again to 21·6 during the week ending July 10th. During the thirteen weeks of last quarter the death-rate in the city averaged 27·3 per 1000, the rate during the same period being 15·5 in London and 24·9 in Edinburgh. The 145 deaths registered in Dublin during the week under notice showed an increase of 9 upon the number in the preceding week, and included 9 which were referred to the principal zymotic diseases, against 11 in each of the two preceding weeks; of these, 2 resulted from diphtheria, 2 from whooping-cough, 2 from "fever," 2 from diarrhœa, and 1 from scarlet fever. These 9 deaths were equal to an annual rate of 1·3 per 1000, the zymotic death-rate during the same period being 2·5 in London and 3·7 in Edinburgh. The fatal cases of diphtheria, which had been 5 and 4 in the two preceding weeks, further declined to 2 last week. The mortality from scarlet fever also showed a decline, while that from whooping-cough showed an increase. The 2 deaths from diarrhœa corresponded with the number recorded in the preceding week. The 145 deaths in Dublin last week included 28 of infants under one year of age, and 31 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons exceeded those recorded in the preceding week. Four inquest cases and 4 deaths from violence were registered; and 51, or more than a third, of the deaths occurred in public institutions. The causes of 7, or nearly 5 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING JUNE, 1897.

In the accompanying table will be found summarised complete statistics relating to sickness and mortality during June in each of the forty-three sanitary areas of London. With regard to the notified cases of infectious disease in the metropolis during last month, it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to 8·7 per 1000 of the population, estimated at 4,463,169 persons in the middle of this year. In the three preceding months the rates had been 7·8, 7·2, and 8·1 per 1000 respectively. Among the various sanitary areas the rates were considerably below the average in Hammersmith, St. George Hanover-square, Westminster, Hampstead, Stoke Newington, St. Martin-in-the-Fields, and Lewisham; while they showed the largest excess in Holborn, Whitechapel, St. George-in-the-East, Limehouse, Mile End Old Town, St. Saviour Southwark, and Battersea. Four cases of small-pox were notified in London during June, against 8, 11, and 10 in the three preceding months; of these, 2 belonged to Battersea, 1 to Bethnal-green, and 1 to the Port of London sanitary areas. No small-pox patients were admitted into the Metropolitan Asylum Hospitals during June, and none remained under treatment at the end of the month. The prevalence of scarlet fever in London showed a further increase upon that recorded in recent months; this disease was proportionally most prevalent in Strand, Clerkenwell, Whitechapel, St. George-in-the-East, Mile End Old Town, St. Saviour Southwark, Battersea, and Lee sanitary areas. The Metropolitan Asylum Hospitals contained 2786 scarlet fever patients at the end of June, against 2468, 2330, and 2495 at the end of the three preceding months; the weekly admissions averaged 272, against 208, 225, and 258 in the three preceding months. The prevalence of diphtheria in London showed a slight further increase upon that recorded in the two preceding months; among the various sanitary areas this disease showed the highest proportional prevalence in Holborn, St. Luke, Whitechapel, St. George-in-the-East, Mile End Old Town, St. Saviour Southwark, and Camberwell. There were 864 diphtheria patients under treatment in the Metropolitan Asylum Hospitals at the end of June, against 776, 764, and 783 at the end of the three preceding months; the weekly admissions averaged 125, against 127 and 108 in the two preceding months. The prevalence of enteric fever in London also showed a further slight increase upon that recorded in the two preceding months; this disease was proportionally most prevalent in Clerkenwell, Poplar, St. Saviour Southwark, and Newington sanitary areas. Erysipelas showed the highest proportional prevalence in Marylebone, St. Giles, Bethnal Green, St. Saviour Southwark, and Rotherhithe sanitary areas. The 24 cases of puerperal fever notified during June included 3 in Lambeth, and 2 each in Fulham, St. Pancras, Islington, St. George-in-the-East, Limehouse, and Camberwell sanitary areas.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various sanitary areas of the metropolis, the deaths occurring in the institutions of London having been distributed among the various sanitary areas in which the patients had previously resided. During the five weeks ending Saturday, July 3rd, the deaths of 5953 persons belonging to London were registered, equal to an annual rate of 13·9 per 1000, against 17·4, 16·6, and 14·9 in the three preceding months. The lowest death-rates during June in the various sanitary areas were 8·6 in Stoke Newington, 9·2 in Lewisham (excluding Penge), 9·7 in Strand, 9·9 in Plumstead, 10·8 in Hampstead, and 11·0 in Paddington; the highest rates were 19 2 in St. Saviour Southwark, 19·3 in St. George Southwark, 21·0 in City of London, 21·3 in St. George-in-the-East, 22·1 in Limehouse, and 26·3 in St. Luke. During the five weeks of June 624 deaths were referred to the principal zymotic diseases in London; of these,

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS OF LONDON—JUNE, 1897.

(Specially compiled for THE LANCET.)

Sanitary Areas.	Estimated population in the middle of 1897.	Notified Cases of Infectious Disease.										Deaths from Principal Infectious Diseases.										Deaths from all causes.	Death-rate per 1000 living.	Deaths of Infants under one year to 1000 births.
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.			
LONDON...	4,463,169	4	1856	1127	1	191	3	24	509	1	3716	8·7	1	131	64	156	141	—	28	2	101	624	1·5	5953	13·9	109
West Districts.																										
Paddington	126,161	—	45	33	—	2	—	1	12	—	93	7·7	—	—	—	3	5	—	1	1	4	14	1·2	133	11·0	76
Kensington	171,427	—	70	28	—	4	1	1	22	—	126	7·7	—	—	3	9	3	—	1	—	5	21	1·3	235	14·3	132
Hammersmith	105,959	—	30	14	—	4	—	1	6	—	55	5·4	—	1	1	2	3	—	—	—	7	14	1·4	159	13·7	165
Fulham	120,040	—	50	31	—	7	—	2	11	—	101	8·8	—	—	1	7	5	—	1	1	1	16	1·4	143	12·4	127
Chelsea	96,692	—	46	30	—	1	—	—	11	—	88	9·5	—	—	1	6	2	—	—	—	4	13	1·4	135	14·6	102
St. George Hanover-square	80,330	—	11	10	—	4	1	—	3	—	29	3·8	—	—	—	1	—	—	—	—	4	5	0·6	87	11·3	151
Westminster	53,027	—	10	13	—	3	—	—	3	—	29	5·7	—	1	2	3	1	—	—	—	—	7	1·4	85	16·7	130
St. James Westminster	22,576	—	11	5	—	—	—	—	3	—	19	8·8	—	—	—	—	—	—	—	—	—	—	—	28	12·9	91
North Districts.																										
Marylebone	140,808	—	33	23	—	4	—	1	25	—	85	6·3	—	2	2	4	3	—	—	—	5	16	1·2	223	16·5	94
Hampstead	77,275	—	18	7	—	2	—	1	5	—	33	4·5	—	1	—	1	1	—	—	—	3	6	0·8	80	10·8	120
St. Pancras	242,255	—	89	42	—	10	—	2	36	—	181	7·8	—	6	3	9	19	—	4	—	7	48	2·1	356	15·3	115
Islington	341,134	—	119	67	—	17	—	2	26	—	231	7·1	—	1	4	10	11	—	3	—	2	31	0·9	384	11·7	88
Stoke Newington	34,136	—	5	6	—	4	—	—	1	—	16	4·9	—	1	—	1	3	—	3	—	—	8	2·4	28	8·6	51
Hackney	216,698	—	101	55	—	10	1	1	34	—	202	9·7	—	7	1	4	6	—	3	—	6	27	1·3	251	12·1	100
Central Districts.																										
St. Giles	37,840	—	7	7	—	1	—	—	11	—	26	7·2	—	—	—	1	—	—	—	—	—	1	0·3	56	15·4	89
St. Martin-in-the-Fields	12,711	—	6	1	—	—	—	—	—	—	7	5·7	—	—	—	—	—	—	—	—	—	—	—	20	16·4	105
Strand	23,552	—	14	5	—	—	—	—	—	—	19	8·4	—	—	—	—	—	—	—	—	—	—	—	22	9·7	48
Holborn	30,493	—	13	31	—	—	—	—	5	—	49	16·8	—	—	—	3	1	—	—	—	—	4	1·4	54	18·5	175
Clerkenwell	66,162	—	33	20	—	9	—	1	—	—	63	9·9	1	8	1	5	2	—	1	—	1	19	3·0	113	17·8	105
St. Luke	41,279	—	15	24	—	—	—	—	4	—	43	10·9	—	14	1	1	2	—	—	—	1	19	4·8	104	26·3	125
City of London	30,228	—	11	4	—	—	—	—	5	—	20	6·9	—	2	—	—	—	—	—	—	—	2	0·7	61	21·0	171
East Districts.																										
Shoreditch	121,883	—	34	34	—	6	—	—	12	—	86	7·4	—	11	—	8	6	—	1	—	4	30	2·6	167	14·3	89
Bethnal Green	129,098	1	51	43	—	4	—	—	37	—	136	11·0	—	10	2	1	2	—	2	—	1	18	1·5	194	15·7	119
Whitechapel	79,724	—	61	36	—	1	—	—	8	—	106	13·7	—	6	4	2	—	—	—	—	5	17	2·2	138	18·1	136
St. George-in-the-East	47,917	—	28	19	1	1	—	2	8	—	69	15·0	—	3	2	7	—	—	1	—	1	15	3·3	98	21·3	146
Limehouse	58,508	—	30	22	—	4	—	2	8	—	66	11·8	—	8	2	5	3	—	1	—	2	21	3·7	124	22·1	110
Mile End Old Town	111,883	—	95	45	—	7	—	—	14	—	158	14·7	—	10	1	2	5	—	1	—	2	21	2·0	163	15·2	101
Poplar	169,511	—	90	59	—	16	—	1	24	—	190	11·7	—	3	2	10	9	—	1	—	1	26	1·6	256	15·7	132
South Districts.																										
St. Saviour Southwark	24,919	—	17	11	—	5	—	—	5	—	38	15·9	—	—	2	2	1	—	—	—	—	1	0·4	46	19·2	133
St. George Southwark	60,388	—	28	16	—	4	—	—	6	—	54	9·3	—	1	2	2	3	—	1	—	4	13	2·2	112	19·3	174
Newington	122,191	—	50	25	—	10	—	1	10	—	96	8·2	—	1	2	4	8	—	—	—	2	17	1·5	165	14·1	104
St. Olave Southwark	11,480	—	6	1	—	—	—	—	—	—	7	6·4	—	—	—	—	—	—	—	—	1	1	0·9	15	13·6	57
Bermondsey	85,629	—	33	16	—	3	—	—	7	—	59	7·2	—	3	1	4	4	—	—	—	2	14	1·7	137	16·7	134
Rotherhithe	40,643	—	18	9	—	—	—	—	9	—	36	9·2	—	4	5	2	2	—	—	—	1	14	3·6	74	19·0	146
Lambeth	300,048	—	109	58	—	13	—	3	29	—	212	7·4	—	13	5	6	11	—	2	—	9	46	1·6	384	13·4	113
Battersea	168,877	2	121	39	—	9	—	1	19	—	191	11·8	—	2	2	8	6	—	—	—	5	25	1·5	191	11·8	114
Wandsworth	195,612	—	67	33	—	4	—	—	21	—	125	6·7	—	2	4	7	1	—	—	—	2	17	0·9	215	11·5	86
Camberwell	257,575	—	100	115	—	6	—	2	29	—	252	10·2	—	5	3	10	5	—	1	—	3	27	1·1	293	11·9	98
Greenwich	178,367	—	99	51	—	7	—	—	24	—	181	10·6	—	1	2	5	2	—	—	—	4	14	0·8	206	12·0	82
Lewisham (excluding Penge)	86,152	—	17	9	—	4	—	—	5	—	35	4·2	—	2	2	—	1	—	1	—	1	7	0·8	76	9·2	98
Woolwich...	41,409	—	14	10	—	1	—	—	7	—	32	8·1	—	—	—	2	1	—	—	—	1	4	1·0	61	15·4	132
Lee	39,215	—	23	1	—	1	—	—	2	—	27	7·2	—	2	—	—	—	—	—	—	—	2	0·5	43	11·4	39
Plumstead	61,057	—	27	10	—	2	—	—	3	1	43	7·3	—	—	—	1	2	—	—	—	—	3	0·5	58	9·9	82
Port of London	—	1	1	—	—	1	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including 18 cases of membranous croup.

† Including deaths from membranous croup.

156 resulted from diphtheria, 141 from whooping-cough, 131 from measles, 101 from diarrhœa, 64 from scarlet fever, 28 from enteric fever, 2 from ill-defined forms of continued fever, and 1 from small-pox. These 624 deaths were equal to an annual rate of 1·5 per 1000. No death from any of these zymotic diseases occurred during June in St. James Westminster, St. Martin-in-the-Fields, or Strand sanitary areas; among the other sanitary areas the lowest zymotic rates were recorded in St. Giles, St. Saviour Southwark, Lee, and Plumstead; and the highest rates in Clerkenwell, St. Luke, Shoreditch, St. George-in-the-East, Limehouse, and Rotherhithe. The single fatal case of small-pox belonged to Clerkenwell sanitary area. The 131 deaths from measles were little more than a third of the corrected average number in the corresponding periods of the ten preceding years; this disease was proportionally most fatal in Clerkenwell, St. Luke, Limehouse, Mile End Old Town, and Rotherhithe sanitary areas. The 64 fatal cases of scarlet fever were 25 below the corrected average number; the mortality from this disease was highest in Rotherhithe sanitary area. The 156 deaths from diphtheria were 14 below the corrected average number; among the various sanitary areas this disease showed the highest proportional fatality in Holborn, Clerkenwell, Shoreditch, St. George-in-the East, and Limehouse. The 141 fatal cases of whooping-cough were 99 below the corrected average number; the mortality from this disease was highest in St. Pancras, Shoreditch, Limehouse, Poplar, St. George Southwark, and Newington sanitary areas. The 28 deaths referred to enteric fever were 13 below the corrected average number; the mortality from this disease showed no marked excess in any of the sanitary areas. The 101 fatal cases of diarrhœa were little more than half the corrected average number. In conclusion, it may be stated that the mortality in London during June from these principal zymotic diseases was nearly 46 per cent. below the average.

Infant mortality in London, measured by the proportion of deaths under one year of age to registered births, was equal to 109 per 1000 during June, and was considerably below the average. Among the various sanitary areas the lowest rates of infant mortality were recorded in Paddington, Stoke Newington, Strand, St. Olave Southwark, Greenwich, Lee, and Plumstead; and the highest rates in Hammersmith, St. George Hanover-square, Holborn, City of London, St. George-in-the-East, St. George Southwark, and Rotherhithe.

THE SERVICES.

ARMY MEDICAL STAFF.

BRIGADE-SURGEON-LIEUTENANT-COLONEL J. H. MOORE has been appointed to officiate on the Administrative Medical Staff of the Army, with the temporary rank of Surgeon-Colonel, vice Surgeon-Colonel C. A. Atkins, on leave. Surgeon-Major R. D. Hodson has been posted to Sheerness for duty. Surgeon-Captain L. Way has been posted to the Station Hospital, Canterbury, for duty. Surgeon-Major S. C. B. Robinson has proceeded from York to Leeds for duty, in relief of Surgeon-Major J. R. Dodd, who proceeded to Woolwich for duty as Senior Medical Officer at the Royal Arsenal. Surgeon-Captain R. A. Bostock, Scots Guards, has been selected for promotion to the rank of Surgeon-Major in the Grenadier Guards, in succession to Surgeon-Lieutenant-Colonel W. Campbell, 1st Battalion, retired.

INDIA AND THE INDIAN MEDICAL SERVICES.

The services of Surgeon-Captain R. W. H. Jackson, M.D., A.M.S., are replaced at the disposal of the Military Department. Ernest Whitmore Newton Guinness, gent., to be Surgeon-Lieutenant, East Indian Railway Volunteer Rifles, vice Whitaker, resigned. Surgeon-Lieutenant-Colonel H. Johnstone, Rangoon Volunteer Rifles, Brigade-Surgeon-Lieutenant-Colonel, Indian Medical Service, resigns his commission. The Volunteer Officers' Decoration has been conferred upon Surgeon-Lieutenant-Colonel Thomas Holbein Hendley, C.I.E., 2nd Battalion Bombay, Baroda, and Central India Railway Volunteer Rifles, Brigade-Surgeon-Lieutenant-Colonel Indian Medical Service. Surgeon-Lieutenant-Colonel J. M. Zorab, Civil Surgeon of Bhagalpur, is appointed to be Civil Surgeon of Cuttack, vice Brigade-Surgeon-Lieutenant-Colonel C. J. W. Meadows, retired. Surgeon-Captain J. T. Calvert, Civil Surgeon of Mymensingh, is appointed to be Civil Surgeon of Bhagalpur, vice Surgeon-Lieutenant-Colonel J. M. Zorab, but will continue to act as Inspecting Officer for the purpose of carrying out the provisions of the Epidemic Diseases Act, 1897, at Khana Junction, East Indian Railway, until further orders. Surgeon-Captain C. E. Sunder, Officiating Civil Surgeon of Rangpur, is appointed to act as Civil Surgeon of Bhagalpur during the absence on deputation of Surgeon-Captain J. T. Calvert, or until further orders. Surgeon-Major C. P. Lukis, from the Rohilkhand Volunteer Rifles, to be Surgeon-Major, to complete the establishment. The following appointment is made on the Personal Staff of the Governor of Bombay:—Surgeon-Captain J. B. Jameson, M.B., C.M., 28th Pioneers, to act as Medical Officer during the absence of Surgeon-Major H. Martin, M.B., on leave.

VOLUNTEER CORPS.

Artillery: 1st Sussex (Eastern Division, Royal Artillery): Surgeon-Major W. S. Burrows to be Surgeon-Lieutenant-Colonel. 1st Midlothian: Surgeon-Lieutenant W. B. Macdonald, M.B., to be Surgeon-Captain. 4th Lancashire: William McClelland, M.B., to be Surgeon-Lieutenant. The Highland: Surgeon-Lieutenant G. Geddes, M.B., resigns his commission. *Rifle:* 1st Volunteer Battalion the Suffolk Regiment: Surgeon-Captain M. E. Ling to be Surgeon-Major. 5th Volunteer Battalion the South Wales Borderers: John Robert Isaac Raywood, gent., to be Surgeon-Lieutenant. 2nd Volunteer Battalion the York and Lancaster Regiment: Surgeon-Captain Charles Carter Moxon resigns his commission, and is appointed Second Lieutenant. 1st Volunteer Battalion the Highland Light Infantry: Surgeon-Captain N. Stark, M.B., resigns his commission. 1st Dumbartonshire: Charles Frederick Spinks, gent., to be Surgeon-Lieutenant.

CONTAGIOUS DISEASES IN INDIA.

Reuter's correspondent at Bombay telegraphing on July 13th says: "The new rules under the Cantonments Bill are published to-day. They apply equally to all contagious diseases, and require that doctors and house-owners shall give information respecting any outbreak of such diseases. Objections to the rules will be considered up to Aug. 10th."

THE FRENCH ARMY MEDICAL SERVICE.

In 1882 the strength of the medical department was fixed at 1300 of all ranks—viz., 1 inspector-general, 9 inspectors, 45 principal medical officers of the 1st Class, 45 principal medical officers of the 2nd Class, 320 surgeon-majors of the 1st Class, 480 surgeon-majors of the 2nd Class, 300 assistant-surgeon-majors of the 1st Class, and 100 assistant-surgeon-majors of the 2nd Class. In addition to the foregoing 60 probationers from Val-de-Grâce were also to be made available for duty. During the decade and a half that has elapsed many changes have taken place in all the other cadres of the active army, the total numbers in each case having been largely increased, but the *Service de Santé* remains *in statu quo*, marking time while all the other sections are advancing. In 1893 M. Mézières, in the name of the army commission, recommended the creation of eighty-one new posts in order that the department might be able to answer requirements in time of peace, and serve as leaven in time of war to the 5000 or 6000 medical officers of the reserve and territorial forces; but the Minister of War proposed a compromise, being willing to grant forty new appointments only, and in the end nothing was done. Owing to the system of training up youths in special institutions there is no lack of candidates for the French army medical department, but apparently among the officers in general discontent is widespread. They consider themselves unfairly handicapped by the authorities, and in support of their complaint point to the German army, whose *Corps de Santé* numbers 1800 in all, or 500 in excess of their own strength.

The Hampshire Company of the Militia Medical Staff Corps arrived at the Royal Victoria Hospital, Netley, on July 3rd to undergo its annual training. The Company is under the command of Surgeon-Captain W. M. O'Connor, M.B. Surgeon-Captain O'Connor is attached to the Medical Division, and Surgeon-Lieutenant H. E. Mortis, Militia Medical Staff Corps, to the Surgical Division. The total strength of the Company is sixty-four officers and men of all ranks.

At the quarterly meeting of the directors of the Naval

Medical Supplemental Fund, held on July 13th, Inspector-General W. H. Lloyd in the chair, the sum of £61 was distributed among the several applicants.

Correspondence.

"Audi alteram partem."

"THE RECENT PRIMARY FELLOWSHIP EXAMINATION AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND."

To the Editors of THE LANCET.

SIRS,—I would like to sound the note of harmony amidst the clash of argument between "A Surgeon of Thirty Years' Standing" and "Anatomist." "Anatomist" focuses his reply on the somewhat unfortunate "German flute" metaphor. But even this is right in substance. And he quotes only such parts of the questions on the terminal portion of the rectum, the topography of the liver, the thyroid gland, &c., as he thinks support his view. These questions bear a different complexion when looked up in the Calendar. They include an account of the development of the organs mentioned, this involving, especially in the case of the liver, about the most intricate questions in embryology. One cannot describe intelligently the development of the liver without fixing the site of its first formation, which means tracing the separation of the pleural and peritoneal cavities. And similarly with the questions as to the nasal septum and the broad ligament of the uterus, to which are added riders as to the vestigial structures connected with these parts, with a reference, in the case of the broad ligament, to their homologues in the male sex.—"But it would never do at the higher examination to ask simply the topography of the liver," someone might say; "everybody would answer that."—"Tack on the partition of the cœlom and the formation of the mediastina."—"Or the three last inches of the rectum."—"Include the closure of the early cloaca and the differentiation of the sexes." We have in these additions the true explanation of the deficiency of the candidates as to "simple accurate knowledge of ordinary general anatomy," of their failing, of all subjects, on the bones. But then the men have been giving all their time to getting up the small type in the new editions of the text-books, and know next to nothing of the anatomy and physiology "without which a sound knowledge of the profession is impossible."

Generalities are not telling in argument. Let us narrow the point to assuredly familiar matter.—"Kindly put out your tongue."—"Would you mind telling me what for? what have you *seen*, who charge for looking down my throat, of the structures beneath the fur on the surface?" Fortunately patients do not often thus address us. But, honestly, what should we answer if they did? Are there not many of us nowadays who know little or nothing, in the true and practical sense of knowing, in the old surgeon's sense of knowing, in the sense of having personally dissected them, of the structures—as Inquisitive puts it—beneath the fur on the surface? I ask the question seriously, in the inner circle of "*nos intimes*," and in the light of your leading articles on Jan. 20th, 1894, and Feb. 6th of this Jubilee year. "*Numbers who dissect ..... dwindling to a minimum.*" "*Dissections of the deeper parts seldom made now*"—*ergo*, tongue, larynx, pharynx, soft palate, rectum, liver, and broad ligaments taught by "a system of chalks, blackboards, and tutorial cramming classes."

But then the corresponding higher examinations become examinations of a higher standard only in regard to the "high falutin'" matter now being introduced and examinations of a lower standard in regard to the anatomy and physiology already defined, in "Anatomist's" words, as that "without which a sound knowledge of one's profession is impossible." In those examinations in which a separate "honours' set" of questions are issued are there not a good many who pass, and aim at passing, on the "honours' set," who know that they would fail on the ordinary, or "pass set"? No less an authority than Professor Struthers "distrusts the honours' list." But then the "honours' list," for professional purposes, becomes—a possible list of dishonour. The new school dissects but little. It explains, and tries to get men to "understand"—that is, to imagine. In saying this, I fear I am calling down a chorus of denials on my head. But I stick to my point. It is true that things are not so *in principle*. *In principle* the new school insists strongly on practical work of all kind. "One part dissected with care," writes Professor Macalister, "is worth a dozen hurried over." Indeed, the zeal and personal example of the leaders are admirable. But the field of work is so enormously extended by the superadded "transcendentalism," that theory and practice cannot go hand in hand. The highest aspirations notwithstanding, the fact is as above stated. And this is by no means limited to work for the higher examinations. It extends to everything. The present system, the "cram" system, is demoralising the schools, discrediting the examining bodies, and dishonouring the profession.

The above is on the surface, and everyone can see it. But let me cross-examine "Anatomist" in regard to something more recondite, as to which he is right, but without quite understanding how, as to something which underlies and shapes the intellectual groundwork on which we stand, and, indeed, explains the apparently inexplicable. How does "Anatomist" tally facts with the view as to the same kind of knowledge being required (except as to greater (?) accuracy) for the higher as for the more ordinary examinations, and as to the examiners not pressing questions requiring more than "very ordinary knowledge" till *after* the candidate has shown himself entitled to a pass? If this be so—and I maintain that it *is* so—how do questions as to vestiges and homolcgues, and the hardest and most unsettled questions in embryology find their way into the *papers?* Will "Anatomist" give the key? The examiners are not trying to pluck. They are simply endeavouring to do their duty; and, on the whole, doing it remarkably well. But why do they make the examinations so "ingeniously eliminative"? They do nothing of the kind—intentionally, at least. Why do they pluck "70 per cent. of the candidates—eighty of the most hard-working and intelligent students"? Because "70 per cent. of the candidates—eighty of the most hard-working and most intelligent students" do not know the "attachment of muscles," the "position of the bones," and the like. We have this on the authority of the examiners' present mouthpiece, "Anatomist."

I maintain that the fault does not lie, in the main, with the examiners. With whom does it lie? With the teachers? Neither—in regard at least to their honestly doing their best by their men. Then where does the evil come from? It comes from the conditions under which both teachers and examiners are working. It comes from the conditions created by the text-books. It comes from the specialists, who, in writing them, pile up detail upon detail, until they make each part of a science a science in itself. Would that I could discourse here on a few of the pointed sayings of the inimitable Mr. Mitchell Banks, or on a few of the weighty apothegms—"Go to nature," for example—of our much endeared Professor Struthers. But I have done this elsewhere, and your space is precious.

Let us "Go to nature." The examiners are not unreasonable. They are tied down somewhat, or think they are—too much so, perhaps; but it is only a passing craze. They do not lay much stress on the transcendental. They do not know much about it themselves. How could they? They are, in the main, surgeons. Show them a little knowledge of Nature. Handle your bones. Look at your muscles. Dissect your large vessels and nerves. Dip your hands into the cavities. Let your knowledge be true knowledge, and not the "information poured upon the memory" (Struthers); and trust to the honour of those who are but a little ahead of you. The examiner soon distinguishes between your book knowledge, rattled off perhaps in unimpeachable phraseology, and your true knowledge, presented, perhaps, in terms laboured and inappropriate, but at least in your own English. One candidate answers "A 1," who probably knows "no more of his subject than he does of Greek." Another answers "well, as a youngster can when necessarily hauled over questions that would puzzle the Presidents of our Colleges." It is to the standing honour of the examiners that they usually pluck the first candidate and pass the second. No body of men are doing their work better, on the whole, than the College examiners. Examinations are easy enough to pass, with just a little honest,

practical work, resulting in a little, simple, plain, true knowledge. "Anatomist" is right here. But the men do not know it. Tell them that they are running after the unattainable and valueless, and missing the good things at their door. Tell them, and thus solve the problem of the 70 per cent. of plucks.

I am, Sirs, yours faithfully,

THOMAS COOKE, F.R.C.S.

July 12th, 1897.

THE GARRULOUS THERMOMETER.

To the Editors of THE LANCET.

SIRS,—Your annotation in THE LANCET of June 26th on the case recorded in the *Indian Lancet* draws attention to a wonderful case of high temperature that to me seems inexplicable. I should like to notice, however, one sentence bearing on what may be considered an abuse of the thermometer. The annotation says: "For weeks the temperature was taken every quarter of an hour, as the rise was often very sudden." The wonder to me is that the woman survived these repeated experiments.

Undoubtedly the clinical thermometer is a great aid in the diagnosis of many diseases. *Per contra*, it is a most mischievous little instrument in the fingers of a fussy nurse, who looks upon it as a sort of fetich to be used on all possible occasions, very often to the discomfort or even detriment of the helpless patient. Montgomery, of Dublin, formerly preached strongly against the evils of meddlesome midwifery, and a warning note might prudently be rung out to-day against the too frequent use of these instruments of precision, especially in the hands of the ignorant. In cases of acute pneumonia, rheumatic fever, &c., where rest is a prime factor in recovery, the meddlesome application of the thermometer for some minutes is a small premium on death, and how often this is done as mere routine needlessly and hurtfully I know full well.

In one case, a young man who had passed through a severe attack of acute rheumatism with heart complications at the age of sixteen years, during his convalescence unfortunately heard that should he have a recurrence and the temperature reach 104° it would go hard with him. This patient had a recrudescence of an alarming nature at twenty-two years of age, and was nearly killed by the fiat of two medical men, who, with grave shake of head, croaked out in his hearing, "Yes, very ill indeed. Temperature 104°." Fortunately I had an instrument that would not register over 100°, and a sight of this was "good medicine" to the otherwise helpless man. Had this man succumbed I should always have considered that the road to death was shortened—it certainly would not have been smoothed—by the reading of the thermometer and the wisdom that it evoked.

Fear is a grave disease, and the unwarrantable use of these appliances, especially in certain temperaments, is accountable for much mischief. Were it not that I have read the sensible advice to "boil it down" much might be written on this subject of some import. My object in this brief letter is simply to draw attention to the mis-directed use of a valuable adjunct to our art, and to point out that this silent monitor in the hands of a garrulous person is capable of great misdoing. The *mens medica*, surely a gift more or less, is not sufficiently cultivated, whereas that dumb orator, the clinical thermometer, is not unfrequently accountable for the manufacture of high temperatures.

I am, Sirs, yours faithfully,

R. A. CALDWELL.

Beckford Lodge, Southampton, July 12th, 1897.

MERCER'S HOSPITAL, DUBLIN.

To the Editors of THE LANCET.

SIRS,—Kindly permit me to explain a statement appearing in THE LANCET of July 10th, which I assume was made by your Dublin correspondent, and might be wrongly interpreted by those not acquainted with the facts. The statement I refer to is that the only member of the old staff of Mercer's Hospital who had been re-elected was Dr. Ward. This might imply that the old staff had sought re-election at the hands of those who purported to have dismissed the entire medical and surgical staff of the institution, and which act was done without alleging any cause whatsoever. A resolution was passed by a section of the board to the effect that for the purpose of regaining for the old institution the high position it formerly held, and to increase the public confidence in the management of the hospital, it was resolved to call upon all the medical and surgical staff to resign with a view of appointing a new staff, and that *the old staff would be eligible for re-election*. It is needless for me to point out the absurdly contradictory nature of this resolution; for if it was necessary to dismiss the medical staff to regain a name for the institution it would be absurd to re-elect those whose names were associated with any deterioration. Subsequently it was decided by the board that all who did not send in their resignations should stand dismissed. So far as applying again to the board who passed such a resolution, condemning, without reason, the entire staff, I think I am safe in saying that no one save Dr. Ward applied for re-election.

Not only did I myself not apply for re-election, but I deny the power of the board to dismiss the staff without cause. It is significant that the time selected by the board for their high-handed act is the beginning of the legal long vacation, when the matter cannot be heard for months; but it is my intention, so soon as the circumstances of the case will allow, and so far as law will permit, to have the matter decided in the interests of the medical profession, my colleagues, and myself.

I am, Sirs, yours faithfully,

EL. STAMER O'GRADY,
Senior Surgeon to Mercer's Hospital.

Merrion-square, Dublin, July 13th, 1897.

THE HALF-YEARLY MEETING OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

To the Editors of THE LANCET.

SIRS,—The value of these meetings becomes much diminished if a small meeting maintains a quorum merely to accept and register the decision of the Council, and the adverse vote of a large meeting is met by a plebiscite on an unfair basis, as was the case with that of the meeting of Fellows which accepted the principle of extending the franchise to the Members. Until this plebiscite the Fellows had shown considerable independence of thought and action. Where were these at the last meeting or in the course adopted by the Association of Fellows at the recent election? Only one Fellow seemed to retain them, for on the amendment being carried and put as a substantive motion Mr. Anderson and Mr. Jackson, the mover and seconder of the original motion, did not vote, and yet one Fellow voted consistently. The meaning of By-law XV., which provides for the rights of Fellows and Members—and in the next motion the principle of representation on which the whole profession is governed were under consideration. Yet of thirty Fellows present besides the mover and seconder only the President of the College touched these subjects, and he explicitly stated that he did not speak on behalf of the Council. He did not give a single reason why the by-law does not apply in Mr. Anderson's case, but only deplored the idea of its being put in operation as derogatory to a scientific body. If it were derogatory it might be no less binding. If it is not binding the reason should be stated by the Council. If it be binding it is not consistent with the honour of the Council to repudiate its engagements. The explanation as to Mr. Bryant's position (I speak impersonally) is, though still unofficial, no more satisfactory. There can be no true representation unless the representative is responsible to those he represents; and if the representatives of the bodies corporate on the General Medical Council have no responsibilities to those who appoint them, then twenty such free agents—a majority of the General Medical Council—constitute an arbitrary and irresponsible government controlling the whole medical profession. The failure of the Fellows present to rise to the level of the occasion, the tameness with which they resigned their important functions in favour of an absolute discretion in the Council, should be matter of grave reflection to the rest of the body corporate, and especially to the Members of the College. Disused functions are quickly lost. If, as has lately appeared, the Fellows do not intend to claim any control over the affairs of the College it is time action was taken to prevent the Council from achieving the absolute supremacy it asserts.

Sir Robert Craven's suggestion that Mr. Anderson's wrongs are suitable matter for appeal to the whole profession met with the favour of the meeting and the commendation of the chair; but appeals to the whole profession on suitable subjects should, it would appear, be led by the leaders of the profession; and why not by the great professional corporations, including the greatest, which is the College?

I am, Sirs, your obedient servant,

July 14th. A FELLOW OF THE COLLEGE.

THE INTERNATIONAL MEDICAL CONGRESS AT MOSCOW.

To the Editors of THE LANCET.

SIRS,—May I call attention to certain matters concerning the approaching International Medical Congress at Moscow?

Firstly, there is need for clear instructions as to how to send money to Russia. Postal orders payable in Russia are not issued in England. English banks will not supply drafts on Russian banks for sums of less than £10. Bank-notes are not allowed to be sent through the post in Russia. Money can be sent by English cheque crossed "Crédit Lyonnais"; but then the rate of exchange seems hard to ascertain. One friend of mine sent a cheque for £1, which he thought was equivalent to 25 francs, or 20 marks, or 10 roubles, but he only got a receipt for 8 roubles 50.

Secondly, the Moscow managers of the Congress seem what we in England should call dilatory. Another friend of mine sent his subscription a month ago, but has had neither receipt nor card of membership. I believe that no one in England has yet had a card of membership. The preparations that have to be made before travelling in Russia as to passport and railway ticket will make inconvenience result if the issue of cards of membership is postponed till the last moment.

Perhaps the ventilation of these matters may lead to closer attention to the convenience of intending members. I enclose my card. I am, Sirs, yours faithfully,

July 14th, 1897. F.R.C.P.

*** The form of inscription says that a cheque of the value of 25 francs or 20 marks (10 roubles) may be sent, and in most cases we believe that a cheque for £1 has been followed by a receipt on a post-card stating that the sender will be enrolled as a member of the Congress. In cases where the amount credited has been 9 roubles 50 we believe that the sender will be inscribed. Of a credit for a less sum in response to a cheque for £1 we have had no examples brought to our notice previously. The official instructions are not explicit, and our advice is that all intending members should send a cheque for one guinea direct to the secretary-general, Professor W. K. Roth. The cards of membership ought to be issued, and we hope that the delay in sending them will not be extended. We would remind those who are expecting them that they must indicate to the secretary-general their place of arrival on the frontier.—ED. L.

THE GERMAN CONGRESS OF INTERNAL MEDICINE.

(FROM OUR BERLIN CORRESPONDENT.)

(*Concluded from p. 57.*)

The Use of the x Rays in Internal Medicine.

PROFESSOR BENEDIKT (Vienna) said that the x rays were an important addition to our methods of cardiac diagnosis. The size of the heart, which formerly could not be precisely ascertained when the organ was covered by the lungs, as in emphysema, is now easily measured; arterio-sclerosis can also be recognised in an early stage, and the formation of aneurysms may be observed. The rays are also valuable in studying the respiratory system, for not only do they enable the action of the diaphragm to be ascertained in health and disease, but infiltration of the pulmonary apices and the formation of cavities become visible, and foreign bodies in the thorax may be detected by the same means. The examination of the abdominal organs by the rays had, however, not yet proved very successful.—In the course of the discussion Dr. Levy-Dorn and Dr. Rosenfeld showed skiagraphs of aneurysms, and Dr. Becher recommended that Esmarch's artificial anæmia should be employed when the extremities are being examined, for the outline of the bones is thereby rendered more apparent.

The Use of Drugs in Modern Medical Practice.

Professor Liebreich (Berlin), the well-known adversary of bacteriology and serum treatment, said that the discovery of many powerful remedies was due to the systematic practical trial of a variety of substances—in fact, to the empiric method of inquiry, entirely without the assistance of theoretical considerations. Digitalis and iodine were notable examples of drugs which had been introduced into medical practice in this way. The recent great advances in synthetical chemistry have resulted in the formation of a host of compounds the properties of which remain for pharmacologists to investigate. Physicians may think that they are overwhelmed by the number of these new substances which are pressed on their notice; they ought, however, not to complain, but rather to welcome such extended opportunities of selection, whereby they are enabled to choose drugs appropriate to individual cases. There are remedies, such as quinine and mercury, which are specifics, inasmuch as they are directly antagonistic to the morbid process or cause of illness, but the mode of their action is as yet far from being known. Since the discovery of bacteria medical men have carefully studied the substances which are capable of destroying them, but in this connexion it is essential to take the cellular elements of the organism equally into consideration, and to avoid the error of concentrating attention exclusively on the micro-organisms, for it often happens that the bacteria associated with a given illness are not the primary cause of it, but have merely been developed to an unusual extent in consequence of the vital energies of the tissues becoming lowered from some cause or other. The bacillus of tubercle, for instance, is to be found in the lungs of healthy persons, and its development assumes the character of a pathological process only after the vitality of the pulmonary cells has been impaired. The treatment of pulmonary tuberculosis ought, therefore, to aim, not at the destruction of the bacilli, but at the restoration of the vital energy of the pulmonary cells. For this reason nourishing food and attention to hygiene are essential; cantharidin has also proved useful. The bacteriologists are of opinion that diseases ought to be classified according to the bacteria which are associated with them. Would they, however, give the name of "coli-bacillosis" to cases of arsenical poisoning in which the bacterium coli was discovered in the heart of animals? and would they try to destroy the bacteria in preference to endeavouring to get rid of the poison? Professor Liebreich was of opinion that Professor Koch's new anti-tuberculin would not be more successful than the former preparation. With regard to Behring's diphtheria antitoxin, he said that the mortality from diphtheria is reported to have diminished since the introduction of the treatment, but competent observers like Kassowitz, of Vienna, and Rose, of Berlin, admit that they have not seen any good effect resulting from it. The history of diphtheria prevalence also shows that periods of low mortality have occasionally occurred. In conclusion, Professor Liebreich asserted that tetanus antitoxin was useless, and that the practical results of the new serum treatment had by no means come up to the expectations to which it gave rise.—A very animated discussion followed Professor Liebreich's address.—Professor Baginsky claimed that the good results of the serum treatment were undeniable.—Professor Behring, after remarking that Kassowitz published his observations five years ago, offered to provide Professor Liebreich with a supply of toxins and antitoxins with which he could himself perform any experiments he might think desirable.—Professor Liebreich, in his reply, said that he did not question the statement that mixtures of toxins and antitoxins made in a test tube were inert.

The Treatment of Chronic Diseases of the Heart.

Dr. Rumpf (Hamburg) said that in the dietetic prescriptions given to patients suffering from chronic heart disease only albumin, fat, and carbohydrates had been hitherto taken into consideration. He has made experiments concerning the action of salts of lime in the organism, and has found (1) that when too much of these salts is present in the food a good deal of it becomes retained in the body; (2) that in calcification of the arteries the elimination of the lime salts decreases; and (3) that the amount of the lime salts in

blood is very inconstant. A decrease of lime salts in the food must thus be of therapeutical value. Dr. Rumpf has investigated the influence of several substances on the elimination of lime salts, and has found that hydrochloric acid, lactic acid, and organic salts of potassium promote it, whilst phosphoric acid had no influence; experiments with oxalic acid and salicylic acid are in progress. As to the amount of albumin necessary for the organism, Dr. Rumpf believed that from sixty to eighty grammes were sufficient. He also recommended food containing a large quantity of potassium and sodium salts such as vegetables and fruit, and expressed his opinion that a mixed dietary was preferable to one consisting exclusively of meat and fat.

Puncture of the Spinal Canal.

Dr. Lenhartz (Hamburg) has performed this operation in grave cases of chlorosis where the increased pressure of the cerebral fluid caused violent headaches. In 10 cases out of 20 operated on the pains disappeared at once. The principal indication for the operation is cerebro-spinal meningitis. He has resorted to puncture in 46 cases of tuberculous and 24 cases of idiopathic cerebro-spinal meningitis In the first group the tubercle bacillus was found in 21 cases only. Of the second group, in 13 cases Weichselbaum's, and in 9 Fränkel's, diplococcus was present; in one instance the bacillus of enteric fever was discovered, and in one instance no bacillus at all could be detected. Dr. Lenhartz was of opinion that it was still uncertain whether the bacillus intercellularis was the cause of epidemic cerebro-spinal meningitis; all his cases were sporadic and were not sufficiently numerous to found an opinion on.—Professor Fürbringer (Berlin) has performed the operation in a new series of 26 cases of tuberculous meningitis, in 14 of which the tubercle bacillus was found. He had previously published a series of 37 cases, in 30 of which the bacillus was present. He had also found the method very useful for the recognition of cerebro-spinal meningitis, and has succeeded in diagnosing cerebral hæmorrhage in 10 cases by its means. In one instance, where it was doubtful whether the patient suffered from delirium tremens or from fracture of the skull, the hæmorrhagic fluid obtained by puncture proved the existence of a traumatic lesion.

Acute Leukæmia.

Professor Fränkel (Berlin) said that a characteristic symptom of acute leukæmia was the hæmorrhagic diathesis in conjunction with swelling of the glands, the liver, and the spleen. He has seen 12 cases within seven years. A good many of them were erroneously believed to be purpura hæmorrhagica, but a correct diagnosis could always be made by a microscopical examination of the blood. The increase of mononuclear leucocytes is very characteristic. Professor Fränkel terms them lymphocytes, and the whole morbid process lymphocythæmia. He has once observed a peripheral paralysis of the facial nerve due to an immigration of leucocytes into the substance of the nerve. In the same case the enormous quantity of twelve grammes of uric acid were discharged within forty-one hours.

Iodine in Disorders of the Circulation.

Professor Vierordt (Heidelberg) said that he had been giving iodine to patients suffering from disorders of the circulation when the usual dietetic and mechanical treatment had not succeeded in relieving the pains. Cases of arterio-sclerosis were especially suitable for this treatment, but it was not applicable to patients over sixty years of age suffering from cardiac debility and albuminuria. At first from 0·25 to 0·5 gramme of iodide of sodium as given several times, so that from 1½ to 3 grammes were taken in the course of a day; afterwards iodide of potassium was administered. It is essential that the patients should use the iodine for a somewhat long time—say, nine months in the first year. After an interval of from three to six months the administration of iodine was resumed. The remedy was very well borne; sometimes, however, the digestion was interfered with. The treatment was remarkably successful, especially in the cases of six patients who had suffered from severe angina pectoris, but who improved so much that they were able to ascend hills and also to return to business. With regard to the theoretical explanation of the action of iodine he was of opinion that the lesion was prevented from extending, but was not actually repaired. It has been suggested by Sée, Huchard, and others that an effect is produced on the vaso-motor nerves, but this is not probable.

Fatty Degeneration.

Dr. Rosenfeld (Breslau) said that the alleged difference between fatty degeneration and fat infiltration was based upon the hypothesis of a metamorphosis of the cellular albumin into fat. He has examined the pathological conditions where this metamorphosis is believed principally to occur, especially in the livers of animals poisoned by phosphorus and phloridzin. In starving dogs to which phloridzin had been administered a quantity of fat was stored in the cells of the liver. This fat did not proceed from the albumin of the cells, as the albuminous substances were not decreased. When mutton fat was injected into the cellular tissue of the skin poisoning by phloridzin made the mutton fat pass from the skin into the liver. In phosphorus poisoning also the fat only passed from the cellular tissue into the liver; this fact was very obvious in starving dogs where the fat had entirely disappeared. In these animals poisoning by phosphorus was not able to produce fatty degeneration of the liver. An artificial injection of mutton fat makes this fat again appear in the liver. Dr. Rosenfeld concluded his address by the remarkable statement that fat is never formed from albumin and that the theory of fatty degeneration must thus be abandoned. When the albuminous substances of a cell are destroyed the loss is supplied by fat passing into the cell. The fat of the organism consists exclusively either of that which is taken as food or that which is formed from carbohydrates.

An abstract of all the papers read before the Congress would occupy more space than can be spared. The principal ones, next after those already enumerated, were as follows: Professor Kronecker, on Death by Thrombosis of the Coronary Arteries; Dr. Friedländer, on Alterations of the Blood by Thermic Influence; Professor Hochhaus, on Experimental Myelitis; Professor Goldscheider, on the Neuronic Theory; and Professor von Mering, on the Function of the Stomach. The next congress will be held in Wiesbaden.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Pressure of Lunacy Admissions at the Liverpool Workhouse.

THE pressure occasioned by the number of lunatics admitted to the Liverpool Workhouse last month was so great that it became necessary to notify the police that for the present the workhouse authorities were unable to receive any more lunatics brought to the workhouse by them. In order to find accommodation for lunatics ten epileptics had to be transferred from their proper wards to the wards occupied by ordinary inmates. The vestry clerk pointed out that every board of guardians in Lancashire is in a similar position as are, to a large extent, others throughout the country. The Lunacy Board are making arrangements, and are now building for something like 1000 patients near Warrington. The clerk was instructed by the Select Vestry to write to the Local Government Board and the Commissioners in Lunacy, and to point out to them the serious state of affairs prevailing in this district. The Commissioners in Lunacy, in their reply, intimated that they could not help the Select Vestry in the matter, as the responsibility rested with the Lancashire County Council and the Lancashire Asylums Board. The reply from the Local Government Board was not encouraging. Altogether matters are in a very unsatisfactory state, all the other unions in this neighbourhood being in similar straits.

Bequest to the Medical Faculty of University College, Liverpool.

By the will of Mrs. Gee, widow of the late Dr. Robert Gee, formerly lecturer in the diseases of children in the Medical School, a sum of £7000 has been bequeathed to the Medical Faculty of University College, Liverpool, for the promotion of study and research in medical science. It was decided by the Medical Faculty to institute a Robert Gee Fellowship in Anatomy of the value of £100 for one year; also four entrance scholarships of the value of £25 each for one year. The late Dr. Gee was also a generous donor to the Liverpool Medical Institution, of which he had been treasurer and president.

The Lyon-Jones Scholarships

The Senior Lyon-Jones Scholarship, open to all second

year's students of the medical faculty who have completed two years of study at University College, has been awarded to Mr. W. J. Young. The Junior Lyon-Jones Scholarship, open to all candidates who have passed any of the preliminary examinations accepted by the Victoria University for the Medical degree course, has been obtained by Mr. D. M. Alexander. Each scholarship is of the annual value of £21, and is tenable for two years.

Resignation of Dr. H. C. Chapman.

Dr. H. C. Chapman, the medical superintendent of the Mill-road Infirmary, has felt it imperative to resign his appointment, owing to ill-health. He has been connected with the Mill-road Infirmary for about twelve years, during which period he so gained the full confidence and respect of the West Derby guardians that they have now granted him the highest superannuation permissible. Dr. Chapman intends to proceed to South Africa without delay, where, it is hoped, his health may improve. The intelligence of his ill-health and intended departure from Liverpool came as a surprise to his numerous friends, with whom he was deservedly popular.

Hospital Extension.

The City Council approved of the recommendation of the Port Sanitary and Hospitals Committee that the sum of £3000 should be placed at the disposal of the committee for the purpose of extending and completing the additions and improvements to the Netherfield-road infectious hospital and the furnishing thereof.

Stanley Hospital.

The committee of this institution at their last board meeting decided to open sixteen of the beds remaining closed for want of funds. Early in the year they issued an appeal to the public for the purposes of liquidating the debt of £2229 and opening the whole of the beds, but the responses have not been sufficient to justify the committee undertaking so heavy an expenditure.

July 15th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Changes at the Royal Infirmary, Edinburgh.

TWO of the surgeons to the Royal Infirmary—namely, Dr. John Duncan and Mr. A. G. Miller—have just completed their full term of office and retire from the active staff. Mr. Cotterill has been appointed a full surgeon and Mr. Cathcart has been placed in charge of the surgical wards reserved for the women students, while Mr. Caird takes Mr. Cotterill's place in the lock wards. Mr. Harold Stiles has been appointed to the vacancy on the staff of assistant surgeons. This appointment has given great satisfaction. On the medical side the vacancy in the staff of assistant physicians has been filled by the affirmation of the appointment of Dr. R. F. C. Leith. The vacancy in the pathological department is to be filled next week and there are several applicants for the post.

The Meeting of the British Medical Association in Edinburgh.

Arrangements have already been begun on the understanding that this association will hold its annual meeting in Edinburgh in 1898. A large meeting of the profession was held in the Royal College of Physicians of Edinburgh on Monday, at which a committee of selection was appointed. Treasurers were instructed to appeal for funds, and the appointment of secretaries was made. Sir Thomas Grainger Stewart is nominated as President.

The Close of the Summer Session, Edinburgh.

The summer classes in the Medical Faculty close this week and arrangements are being made for the holiday season. Professor Cossar Ewart delivers the address to the medical graduates on one of the last days of the present month, instead of on the first lawful day of August, as under the old law which has been modified to this extent by the new ordinances.

Infectious Hospital at Aboyne.

A curious dispute has occurred as to the infectious diseases hospital which the district committee of the county council had commenced to erect at Aboyne. Sir W. C. Brooks, Bart., of Glen Tana, apprehensive of the effect of the presence of such an establishment in a summer resort such as Aboyne, has offered to pay £1000 if the hospital be removed to a site at Dess about a mile and a half from the village of Aboyne. It may be mentioned as a significant fact in connexion with matters of this kind that the Aberdeen City Hospital for Infectious Diseases, which was originally in the country, has now been surrounded by dwelling-houses without any known cases of communication of infection.

Presentation to a Medical Man.

Dr. William Reid, medical superintendent of the Aberdeen Royal Lunatic Asylum, was presented on the 9th inst., by his board of directors, his official colleagues in every branch of the institution, and a few intimate friends with a handsome silver tea and coffee service, on the occasion of his approaching marriage with a daughter of Dr. Bruce of Dingwall.

Examiners at Aberdeen University.

The University Court of the University of Aberdeen, at its meeting on the 13th instant, appointed as additional examiners, each for a period of four years from Feb. 1st, 1898, the following—viz.: Anatomy: Arthur Keith, M.D. Aberd., of the London Hospital Medical College, London. Physiology: M. S. Pembrey, M.A., M.D. Oxon., of Charing-cross Hospital Medical School, London.

July 13th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Health of Dublin.

THERE has recently been a very great improvement in the condition of Dublin as regards health. For the week ending July 3rd, Sir Charles Cameron stated the death-rate at 20 per 1000 persons living, the mean-rate for the corresponding week of the last ten years being 27·3. Belfast also shows a remarkably clean bill of health, the rate being 14·8. The Cork rate was 23·5; Kingstown seems to be especially healthy this season, the deaths being only at the rate of 5·6 per 1000. At a meeting of the Dublin Sanitary Association on July 9th, it was remarked that four deaths from diphtheria had taken place during the week which ended on the previous Saturday.

Beri-beri at the Richmond Asylum.

At a meeting of the governors of this asylum, which took place on the 13th, the medical superintendent, Mr. Conolly Norman, reported a recent outbreak of beri-beri in the institution. During the last fortnight fifteen new cases had occurred, twelve female patients and three nurses having been attacked. In reply to Mr. Clancy, Mr. Norman stated that there had been at one time as many as seventy persons suffering from the disease. It became worse during the summer, attained its height in the autumn, and passed away in the winter and spring. It had never, however, been entirely absent for the last three and a half years. Other instances of congestion in lunatic asylums have recently been reported, for instance, at Armagh, Londonderry, and Monaghan, but no case of beri-beri has appeared. The governors of the Londonderry Asylum have recommended that immediate steps be taken to erect buildings capable of meeting the requirements of sixty additional patients. At the Monaghan Asylum the medical superintendent reported recently that there were 137 patients over the proper number in the house.

Ulster Medical Society.

At the annual meeting of the Ulster Medical Society, held on July 9th, the council's report showed that the society was in a very flourishing condition, while financially the treasurer has a good balance in his hands. The following office-bearers were elected for session 1897-98: President, Dr. J. A. Lindsay; Vice-Presidents, Professor W. H. Thompson and Dr. McKisack; secretary, Dr. Colville; treasurer, Dr. John McCaw; librarian, Dr. Shaw; pathological secretaries, Dr. J. Lorrain Smith and Dr. Lynass; council, Dr. Campbell, Dr. Calwell, Dr. Bingham, Dr. Kevin, Professor Byers, and Dr. Gaussen.

Presentation of Addresses to Mr. John Fagan.

Mr. John Fagan, F.R.C.S. Irel., who was recently appointed inspector of industrial schools in Ireland, has been the recipient of two very flattering addresses from his medical friends in Belfast. One of the addresses was from his old colleagues, the members of the staff of the Royal Hospital, where for over twenty years Mr. Fagan was a surgeon and where he was greatly respected by his *confrères*

both as a friend and as a skilful operator. This address was presented to Mr. Fagan on July 8th, on the occasion of an extremely social and pleasant dinner given in his honour by Dr. Walton Browne senior surgeon to the Royal Hospital, and at which nearly all the staff of the hospital were present. The second address was presented to Mr. Fagan on July 9th from the members of the Ulster Medical Society, of which he was twice president. Mr. Fagan was also elected an honorary member of the society, and most flattering speeches were made at the meeting by several of the members, expressive of their admiration for Mr. Fagan and of the loss the medical profession in Belfast had sustained by his removal to another sphere of duty. Mr. Fagan goes to Dublin, carrying with him the best wishes for his happiness and prosperity.

July 13th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Academy of Medicine.

M. LANNELONGUE has read before this society a long paper dealing with his method of treating hernia by the injection of chloride of zinc under the skin. He showed some cases from which a better judgment could be formed than when he first introduced this method about a year ago. Preparatory treatment is unnecessary, and the only point to be taken into consideration is to compute the renal adequacy of the patient according to the method of Ahard. Care must be taken not to wound the spermatic cord or to throw the injection into the peritoneal cavity. At the moment of operation an assistant places his finger in the abdominal ring, and the operator injects from ten to twelve drops of the solution of chloride of zinc, taking care to press a finger on the cord. The first injections are made at the level of the external abdominal ring at the upper border of the pubes at first internal to, and then external to, the cord. The operation does not last more than two or three minutes. After the operation nothing is needed but a spica bandage. No anæsthetic is necessary, but to obtain quiet, children may be given a little chloral, and if they are over three years of age a little morphia may be added. The chloride of zinc brings about a necrosis of the tissues, together with an enormous immigration of leucocytes. Frequently enough fibrous and fatty tissue form to completely block up the canal. M. Lannelongue has employed this method in fifty-one cases. Between the ages of one and twenty years he had forty-four cases, forty-one of whom were permanently cured, two incompletely cured, and one was a failure. Two subjects of between fifty and sixty years of age had large double hernias; one case failed and the other was a success. Two women with simple hernias were completely cured.

Another Scandal at a Maternity Clinic.

The lay press recently made a great to do about the case of a pregnant woman who, accompanied by her husband, presented herself at a maternity hospital and was referred to the central office of the Assistance Publique as there was no vacant bed. The Assistance Publique, however, referred the woman to another hospital saying that they did not take in lying-in cases. So the woman stopped in the street while her husband was being referred from one department of the administration to another, and while this was going on she was suddenly delivered in the street of twins. The chief secretary of the Prefecture of Police happened to be passing at the moment and gave orders for a conveyance to take the mother and children to a hospital. The daily press is much exercised over this matter, which could easily have been avoided had someone telephoned to the maternity hospital first of all to inquire if there was a bed. They forget, however, that women only too often put off till the last moment attending the hospital and are frequently confined in the carriage on the way there. The Prefecture of Police has been compelled to make policemen undergo a very elementary course of midwifery, for cases of women being confined on their way to the hospital are becoming so very common.

The New Tinea Hospital.

At the Hospital of St. Lois there has just been opened a new ward for the reception, treatment, and education of children suffering from tinea and allied conditions. Attached to this ward is a school, to which has been given the name of the École Lallier, and here the children will continue their studies without interruption during the long course of treatment necessary. Formerly when a child was attacked with tinea no school would take the patient, and he or she was therefore condemned to a long term of enforced idleness; but this new school will allow of these unfortunate little ones continuing their studies and being treated at the same time. The new building, which is divided into spacious class-rooms, well lighted and ventilated, will accommodate 650 pupils. The first division of the school is intended for cases of tinea tonsurans and contains 192 beds, and in its eight classes contains 418 children equally divided among out- and in-patients. The second division has 63 beds and school places for 200 children. A general infirmary with 28 beds will receive the sick from both these divisions. Altogether the Lallier School will contain 220 resident pupils, including the girls who come from the Trousseau Hospital and the boys from the Children's Hospital. The new buildings comprise a magnificent laboratory and spacious dining-rooms, which after meals can be used in the winter as covered playgrounds. The dormitories, too, are fitted up in the very latest fashion. The palace thus offered to these little scald-heads has cost 1,500,000 francs, of which sum 1,100,000 francs have been supplied from the funds of the *pari mutuel* and 400,000 francs by the town of Paris. It was commenced on June 1st, 1895, and finished on June 1st, 1897. For the opening ceremony, which was fixed coincidently with the distribution of prizes, an enormous tent was erected in the large courtyard, and here attired in a uniform consisting of a blue blouse and trousers, the little ones, with their heads covered by a white handkerchief, were able to admire the magnificent buildings destined for their use.

An Original Petition.

The ward at the hospital of the Salpêtrière which is allotted to the use of the in-patients is so old and dilapidated as to be almost unfit for habitation. Moreover, it is infested by bugs, which during these hot nights make sleep impossible, and the in-patients have for a long time past been asking that their quarters should be rendered more comfortable, but the director of the hospital remained deaf to their complaint. They therefore collected in a bowl all the bugs which they were able to catch in a night and addressed them to M. Peyron, the Director of the Assistance Publique, with this inscription: "Collection made in our dormitory on the night of July 6th–7th, 1897." They further say that every morning they will send him a similar parcel, and so the management is at last impressed with the necessity of finding these in-patients more comfortable quarters.

July 13th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The New Tuberculin.

THE *Deutsche Medicinische Wochenschrift* has commenced the publication of a series of communications describing the experiences of leading hospital physicians with Professor Koch's new tuberculin. The first article is written on behalf of the department for diseases of the throat and chest of the Charité Hospital in Berlin by Dr. Bussenius, assistant physician to that hospital. The treatment was used for nineteen patients, twelve of whom suffered from laryngeal tuberculosis, two from pulmonary tuberculosis, four from lupus, and one from asthma. With fifteen of those patients the treatment was continued until it was considered that the full effect was produced, and it was accordingly stopped; in one case it had to be stopped on account of hæmoptysis occurring, and three patients are still undergoing the treatment. The number of injections was 314 for the first fifteen patients and twenty-four for the last four cases; the quantity of fluid injected was 125·46 c.c., containing 1254·6 milligrammes of solid substance, its price being no less than 1066 marks (£53). The largest number of injections performed in one patient was twenty-five, and the greatest quantity injected was 15 c.c. The duration of the treatment varied from twenty-nine to sixty-five days. When the treatment was finished injections of the old tuberculin were made, with the result that none of the patients showed a reaction. In accordance with the recommendations of Professor Koch, the injections were begun with very small quantities and were therefore somewhat

quickly increased, Professor Koch believing that reaction may be avoided in this way. Dr. Bussenius found that the maximum dose was reached without febrile reaction in only four cases, whilst in the others the temperature generally rose after the injections. He stated that the fluid purchased from the Hoechst factory seemed to vary in strength. For instance, the preparation issued on June 4th caused not only fever, but also other and undesirable symptoms, such as swelling of the lymphatic glands, debility, &c., but bacteriological examination nevertheless showed it to be sterile; the preparation sent out on June 11th caused fever, which was ushered in by a rigor and lasted about twenty hours, the patient's temperature being 41·3° C. (= 106·3° F.). In one of the cases of lupus the injection of 1 c.c. of this tuberculin caused a swelling of the diseased cutaneous tissues similar to that observed with the old tuberculin. It was remarkable that the same patient had formerly received 4 c.c. from another bottle without any reaction. This result showed that the technical details of the preparation of the tuberculin still need improvement in order that the product may be always uniform. Great precautions are still necessary when a fresh bottle is used, the activity of which is not yet ascertained. The pulse and the respirations became more frequent simultaneously with the rise of temperature; two patients complained of oppression and excessive perspiration; disturbances of the digestion were never observed, and the appetite was not obviously influenced. In seven patients an increase in weight was observed and in five a decrease, whilst in two it was not changed at all. None of the 334 injections was followed by suppuration, but in some instances there was an infiltration round the place of the injection, which passed off without treatment. As to the effect of the treatment on the local process, it was stated that in two cases of pulmonary tuberculosis complicated by syphilis the cough and excretion where tubercle bacilli were present very soon disappeared; in laryngeal and pharyngeal tuberculosis there was no obvious amelioration in any instance. The local reaction was very slight, and there was no danger of laryngeal œdema, so frequent with the old tuberculin. The best results were obtained in cases of lupus. Two of the patients suffering from this disease recovered completely, seven and nine weeks respectively after the beginning of the treatment; in one case the healing went on very well and the greatest part of the lupoid area was in a state of cicatrisation; but the injection, unfortunately, had to be stopped owing to the above described troubles due to excessive energy of the tuberculin. The fourth case of lupus is still in an early stage of the treatment. Dr. Bussenius is not yet disposed to give a definite opinion as to the efficacy of the new tuberculin, but the results attained seem to fall short of the expectations of Professor Koch.—Another short communication on the new remedy is made by Professor Schultze, of Bonn, who has treated nine patients up to the present. The reactions so characteristic of the old tuberculin were never observed. In one case a laryngeal affection, probably of a tuberculous nature, made its appearance during the treatment, and the patient consequently refused to have the injections continued. Another patient suffered from diarrhœa after the injections, lost two kilogrammes (4½ lb.) in weight and declined further treatment. In four cases there was no apparent alteration of the patient's general condition, in one case of pleurisy there was a general improvement, and in two other cases a marked amelioration of the laryngeal affection was observed. Professor Schultze said that it was quite impossible to determine whether the amelioration was due to the treatment or to the general hygiene and dietetic measures.—This series of articles on the new tuberculin will be continued in the forthcoming number of the *Deutsche Medicinische Wochenschrift*.

July 12th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

The Heat and an Ice Famine.

THE above is a bad combination of which all who have to stick to their posts in Italian cities are "feelingly persuaded." The calorific wave that swept over the peninsula and islands recently, and has not yet spent its force, seems destined to take rank with the "Calori Storici" of the century, particularly those of 1861, 1881, and 1892. Already the superintendents of the various observatories throughout the kingdom are issuing comparative statistics of the "hot years," from which it results that 1897, with its temperature of 109° F. at Arezzo and at Sassari (Island of Sardinia), and its 95° F. at Brescia in the Alta Italia, is on the fair way to earn its *titolo di priorità*. Apart, however, from figures and their attempted explanation, seismic or meteorological, the heat this summer has been productive of unusual suffering and loss, of which we are but beginning to realise the extent. To aggravate the situation we are beset with an ice famine, sorely felt in all the great centres, particularly Rome, Florence, and Milan. Last winter, it will be remembered, was in Italy a remarkably mild one, in consequence of which the yield of ice was exceptionally poor. With an improvidence, however, which amounts, I fear, to a national characteristic, none of these cities was at pains to lay in a store against the inevitable requirements of the summer. In the last days of June and the first days of July the heat (as the poet says) "leapt upon us like a tiger." Central Italy was the first to wince under the shock. In Florence the butchers, the fishmongers, the poulterers, the dairymen, and the confectioners all found their wares becoming tainted and their business suspended. Under pressure of clamorous customers they besieged the ice-vendors' stores but were met with a "*non possumus*" which they interpreted as an excuse to raise the price of the commodity. In their exasperation they broke into the said stores, only to find "no effects" and a series of distasteful attentions on the part of the police. Now I hear they have had to telegraph for ice from the Mont Cénis, and the cost of the article from being 1 franc 20 centimes the hundredweight (*quintale*) is now 6 francs! Great as are the discomfort and sense of privation among the general public, it is in the hospitals where the ice famine is most felt, insomuch that the death-rate, particularly after surgical operations and among the admissions to the fever wards, must inevitably rise. It may be asked, Where are the artificial ice companies? That, however, has never been a flourishing manufacture in Italy, as may be inferred from the fact that of the 800 *quintali* consumed in Milan every year only 120 are artificial, the remainder (the natural ice) coming from firms in relation with Alpine sources. Neither Rome nor Florence, however, is so near the snow fields as the Lombard capital, and though the former has her Rocca Priora on the Alban Hills and the latter her Apennines, still, as I have said, the mild winter of 1896–7 in these quarters minimised the yield of ice and left the dealers without excuse for neglecting to replace it artificially or from the Alta Italia. In the well-nigh tropical summer of 1881 a similar "carestia del Ghiáccio" (ice famine) was equally felt, but improvidence and short memories go together, and it seems a special function of Italy to furnish object-lessons in both.

Water-carts and Street "Cultures."

Opinion, professional as well as popular, is divided on the question as to whether or no the streets in our cities should be watered. Quite lately a distinguished occupant of a university chair (I think of pathological histology) delivered a lecture on the subject, and after quoting the conclusions of the Hamburg Commission appointed *ad hoc* during or immediately after the latest cholera epidemic in that port left the problem, as they did, unsolved. The recent experiments of Wittlin, proving that the water-cart is a fertile fosterer of bacteria, have made a profound impression in Italy, favouring as they do the "quieta non movere" principle so dear to Southern populations. Leave the dust, it is said, to undergo the beneficent action of solar light, the steady desiccation (that best of all disinfectants), and put up with its inconveniences. "Better to bear the dust we have than fly," &c. But no one who has passed a summer in Italy, with the great increase of vehicular traffic, will be impressed with this argument. Why not fix the bacteria on the roads rather than favour their lodgement through the air-passages in the system? True, the mud left in the wake of the water-cart is in itself a "culture," which, if allowed to dry, will simply let loose a more formidable cloud of bacteria than before. But the water-cart itself might be better managed. Its operations should begin at daybreak, and while the roadway is still damp the scavenger or the steam brush should follow. Never water the streets during the hottest hours of the day (as is habitually done in Italy), but at those periods when evaporation is less rapid. It is all a question of more gradual and better-timed watering

(say the less unscientific among the disputants), calculated to succeed (they add) in a country where wood pavements with their organic detritus are as yet unknown.

Honours for Professor Sanarelli.

Besides conferring on the discoverer of the bacillus icteroides the honorary citizenship of Uruguay, the Montevidean legislature, in acknowledgement of his services, has voted him the donation of ten thousand pesos, at the same time recording its regret that "the unhappy condition of the country does not admit of its doing more to evince its gratitude to a physician and nature-student who has already laid those regions under so many obligations."

July 13th.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in the subjects indicated:—

Monday, July 5th:

Anatomy and Physiology.—Thomas Sayers, Herbert Leach, and Edwin Samuel George Fowler, Yorkshire College, Leeds; Arthur Cardell Oliver, University College of South Wales, Cardiff; George Percy Smith, Lambert Arthur Wellesley Johnston, John Brentnall, Stanley, Vivian Hood Symons, and Bernard Septimus Hollick, Mason College, Birmingham; Alfred Ernest Underwood Hawkes, University College, Liverpool; Francis Beliairs Alderson and William Herbert Forshaw, Firth College, Sheffield; William Francis Harriott Coke, St. George's Hospital; Samuel Joseph Willcox, University College, Bristol; Oswald Lacey Addison, University College, London; Alfred Charles Stanley Waters, Cambridge University; Shapurji Hormusji Modi, Grant Medical College, Bombay, and St. Bartholomew's Hospital; Walter Brock Parsons and William John McCoy, Medical College, Madras.

Anatomy only.—Stanislaus Marcus Dowling, Catholic University of Ireland, Dublin and University College, Bristol; and John Ellington Jones, University College, Bristol.

Seventeen gentlemen were referred in both subjects, one in Anatomy only and two in Physiology only.

Tuesday, July 6th:

Anatomy and Physiology.—Robert Archer Lloyd, Alwyne Theodore Compton, Graham Shaw Arnold Smith-Wynne, Francis Williams Sheppard, Charles Saunder Chalk, Alfred Ernest John Lister, and Thomas Massey Pearse, St. Bartholomew's Hospital; Donald Poyntz Chapman, Charing-cross Hospital; Harold Cooper Pretty and Clifford Allchin Gill, University College, London; Edwyn Manners Ridge, Benjamin Charles Broomhall, Charles Robertson Porter and Edward Walter Bain, London Hospital; Burnet Graham Patch and Horace Georges Pinches, St. Thomas's Hospital; Sydney Greenwood Penny, St. George's Hospital; Arthur Falconer Hayden, St. Mary's Hospital; and Sydney John Peake, King's College, London.

Seventeen gentlemen were referred in both subjects.

Wednesday, July 7th:

Anatomy and Physiology.—Richard Robert Cruise, Erasmus Oakes Faulkener, Harry Tudor Newling, Reginald Ambrose Facey, and Cyril Evered Tuwaites, St. Mary's Hospital; Frederic William Longhurst, St. George's Hospital; John Salmon Smith, Middlesex Hospital; Harold West Hodgson and Alfred Bertram Saltau, London Hospital; Basil Sorley Bartlett, Roger Lionel Hagger, and Geoffrey Allen Upcott Gill, University College, London; Morgan James Rees and Frederick Goulburn Gibson, Guy's Hospital; John Evans Richards and William Monro Anderson, Charing-cross Hospital; Ernest Alfred Donaldson-Sim, St. Bartholomew's Hospital; John George Glasgow, St. Thomas's Hospital and Mr. Cooke's School of Anatomy and Physiology; and Clarence Herbert Downer, King's College, London.

Seventeen gentlemen were referred in both subjects.

Thursday, July 8th:

Anatomy and Physiology.—Thomas Percival Allen, William Christian Bamgarten Smith, Pascoe Bevil Grenfell, and Reginald Torriano Cooke, St. Bartholomew's Hospital; Thomas Sidney Dawber Enderby, Eustace Raven, and Douglas Duke Turner, St. Thomas's Hospital; John Hamilton Hart, St. Thomas's Hospital and Mr. Cooke's School of Anatomy and Physiology; William Augustine Mc Enery, Middlesex Hospital; Ernest Vaughan Aylen and James Davey, London Hospital; Arthur Charles Duncan Newton and William Lawrence Steele, University College, London; Ashley West Talbot and Edgar Hall Felton, Guy's Hospital; Frederick Burroughs Jefferiss, King's College, London; William George Hopkins, St. Mary's Hospital; and Ernest Ronald Walker, Charing Cross Hospital.

Eighteen gentlemen were referred in both subjects.

Friday, July 9th:

Anatomy and Physiology.—Sydney Balch Green, Henry Cyril Adams, and Daniel Davies, St. Bartholomew's Hospital; Thomas Davidson Miller, St. Thomas's Hospital; James Ross Clemens, Jefferson College, Philadelphia, and St. Thomas' Hospital; Arthur St. John Bateman and William Lumsden Stuart, King's College, London; Edward Cecil Clements, Middlesex Hospital; Cecil Edward Last, St. George's Hospital; Patrick Dalgado, Grant Medical College, Bombay; Henry Somerville, Westminster Hospital; George Ernest Goode and Samuel Newall Foulkes, London Hospital; Thomas Copeland Savage, University College, London; and Thomas Shalden Smith, St. Mary's Hospital.

Anatomy only.—Herbert Charles, Middlesex Hospital; Leslie Frederick Enthoven, Cambridge University and Mr. Cooke's School of Anatomy and Physiology; and Thomas Langton Butler, St. Mary's Hospital.

Physiology only.—Elijah Richard Lockwood Thomas, London Hospital; and Fred. Algernon Simpson, St. Mary's Hospital and Mr. Cooke's School of Anatomy and Physiology.

Eleven gentlemen were referred in both subjects, four in Anatomy only and one in Physiology only.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentleman, having previously passed the necessary examinations and having now conformed to the by-laws and regulations, has been admitted a Member of the College:—

Donald John Armour, M.D. Toronto, Toronto University and University College Hospital.

SOCIETY OF APOTHECARIES OF LONDON.—At the Primary Examination the following candidates passed in the subjects indicated:—

PART I.

Biology.—E. M. Forsyth, K. M. H. Hawkins, and T. G. Prosser, Royal Free Hospital.

Chemistry.—T. M. Burton, A. E. Gilford, C. Hind, H. M. Jones, and D. E. Lockwood, Royal Free Hospital; F. H. Maberly, Birmingham; L. S. Molony, F. M. Payne, and E. J. Polito, Royal Free Hospital; F. M. Rodgers, Manchester; and C. M. Scott, G. E. Soltau, and M. E. Unwin, Royal Free Hospital.

Materia Medica and Pharmacy.—J. Buckley, Manchester; H. H. Cotman, Aberdeen; E. A. Dunn, Royal Free Hospital; R. F. Ellery, St. Bartholomew's Hospital; W. J. H. Hepworth, Edinburgh; S. F. Hickman, Royal Free Hospital; W. Hunter, Durham; R. O. Jones and E. McD. Judge, Guy's Hospital; and J. A. Wolverson, Birmingham.

PART II.

Anatomy.—K. M. Betts, Royal Free Hospital; T. Burdekin, University College Hospital; C. E. C. Child, Charing-cross Hospital; H. H. Cotman, Aberdeen; T. B. Fawley, Leeds; K. E. Gregg, Royal Free Hospital; T. A. B. Harris, Sheffield; W. M. Hocken, Liverpool; T. E. Holman, Guy's Hospital; H. N. Horton, Middlesex Hospital; H. E. D. Lloyd, St. Bartholomew's Hospital; R. A. Lyster, Birmingham; H. MacMaster, Sydney and Edinburgh; D. V. Muller, Charing-cross Hospital; E. C. Pratt, Birmingham; M. E. Rocke, Royal Free Hospital; L. Sells, St. Thomas's Hospital; S. H. Smith, Royal Free Hospital; A. E. Whitehead, Sheffield; and W. R. Wilson, Dublin.

Physiology.—W. Asten, Birmingham; H. H. Beale, St. Mary's Hospital; J. R. Bentley, Cambridge and Middlesex Hospital; K. M. Betts, Royal Free Hospital; A. J. Blair, Belfast; A. F. Carlyon, Middlesex Hospital; A. Croneen, Guy's Hospital; A. M. Crosfield, Edinburgh; T. B. Fawley, Leeds; O. H. C. Fulton, Dunedin and Edinburgh; G. H. L. Hammerton and T. A. B. Harris, Sheffield; A. T. Harvey London Hospital; H. N. Horton, Middlesex Hospital; H. E. D. Lloyd, St. Bartholomew's Hospital; E. C. Pratt, Birmingham; M. E. Rocke, Royal Free Hospital; F. E. Snean, London Hospital; S. H. Smith, Royal Free Hospital; A. E. Whitehead, Sheffield; and J. H. Williams, London Hospital.

FOREIGN UNIVERSITY INTELLIGENCE.—*Berlin:* The new Professor of Physiology, Professor Engelman, in taking over the late Dr. du Bois Reymond's chair, is arranging certain changes in the Physiological Institute and its four departments. The first, for microscopical and biological work, will remain under the charge of Professor Fritsch. Similarly, the second, for chemical physiology, will continue under its present director, Professor Thierfelder. The third, for special physiology, will be greatly enlarged, and the professor himself will take part in its work in conjunction with the present director, Dr. Immanuel Munk. The fourth department, for physical physiology, will also be largely increased; it will be called the Department for the Physiology of the Sensory Organs, and will remain under the direction of Professor König. In addition to extensive new buildings the supply of apparatus will be largely augmented. The lectures will be given by the professor in a course running through two semesters, but during the last four weeks in the summer Professor König will lecture on the sensory organs, and during the first four weeks of the winter Professor Thierfelder will lecture on physiological chemistry.—*Bologna:* Dr. L. Silvagni and Dr. F. Vitali have qualified as *privat-docenten* of medical pathology.—*Kazan:* Dr. Rustitski has been promoted from Extraordinary Professor to Ordinary Professor of Operative Surgery.—*Kharkoff:* Dr. Podres has been promoted from Extraordinary Professor to Ordinary Professor of Surgery.—*Leipzig:* Dr. Kockel, *privat-docent* of Pathological Anatomy and Forensic Medicine, has been promoted to the rank of Extraordinary Professor.—*Tübingen:* The Chair of Midwifery and Gynæcology having been declined by Professor Fehling, of Halle, the faculty has made a fresh selection of names—(1) Dr. Bumm, of Basle; (2) Dr. Löhlein, of Giessen; and (3) Dr. Döderlein, of Groningen.—

Vienna: Dr. S. Fränkel has qualified as *privat docent* of Medical Chemistry.—*Würzburg:* Professor Kölliker, on account of his advanced age, is giving up the teaching of Descriptive Anatomy and will confine himself to Microscopical Anatomy for the future. The chair of Descriptive Anatomy has been offered to one of his old assistants, Dr Philipp Stoehr, at present professor in Zurich. Dr. Eduard Kohl has qualified as *privat docent* of Internal Medicine.—*Yale:* Dr. J. Slade Ely has been appointed Professor of Medicine.

PRESENTATIONS TO MEDICAL MEN.—The following gentlemen have received presents from the local ambulance classes as tokens of appreciation of their honorary instruction in first aid—namely, Mr. Alexander A. McNab, M B. Glasg., from the members of the Workhouse division of the St. John Ambulance Association, Bradford, a gold pin set with diamonds; and Mr. Sydney Partridge, M.D. Edin., from the members of the Darlaston centre of the St. John Ambulance Association, a barometer.—Dr. Beattie on Saturday last, at a social gathering held at Shaw Cross, Dewsbury, in connexion with the St. John Ambulance Association, was the recipient of a dressing-case presented by the male and female members of the above association, in appreciation of his services as their lecturer.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC QUEEN-SQUARE, W.C.—Concerts in honour of the Diamond Jubilee were given at this hospital on July 10th, in the morning, afternoon, and evening, the arrangements being under the direction of Miss Janotha. The Duchess of York, attended by Lady Mary Lygon and the Honourable Derek Keppel, arrived at the hospital about half-past three, and were received by the Bishop of Marlborough, Colonel Porter, Sir William Gowers, Dr. Ferrier, Mr. Silva, and Mr. Burford Rawlings. The Duchess visited several of the wards and spent some time in the concert-room, making a stay of about an hour altogether. The general company included the Countess of Bantry, Lord and Lady Amherst of Hackney, Lady Russell Reynolds, Lady Crichton Browne, Sir Henry and Lady Burdett, Dr. Buzzard, General and Mrs. McMahon, Mr. R J Seddon (Premier of New Zealand) and Mrs. Seddon, the Rev. W. R. Greenhill (chaplain), and Miss Tweed (lady superintendent). At night the hospital grounds were brilliantly illuminated. Endeavours are at present being made to complete a Commemoration Fund of £10 000, a considerable portion of which has been already raised.

LITERARY INTELLIGENCE.—The prospectus has just been issued by the publishing firm of F. Enke, of Stuttgart, of a forthcoming "Handbook of Practical Medicine," edited by Dr. W. Ebstein and Dr. Schwalbe. The work is to be in five volumes and will appear in instalments. The first "lieferung" is to be issued at the beginning of 1898 and the last, it is hoped, about the middle of 1899. Among the long list of contributors may be noted the names of Professor Liebermeister and Professor Lenhartz, who write on the Respiratory Organs; Professor Laache, of Christiania (Diseases of the Blood); Professor Pel, of Amsterdam (Diseases of the Stomach); Professor Pibram, of Prague (Diseases of the Intestines); Professor Rosenstein, of Leyden (Diseases of the Kidneys); and Dr. Jolly, of Berlin (Neuroses); the aim being to secure writers who have specially studied the subjects assigned to them. It is instructive to find that nearly every section is supplemented by a surgical article, and it is further intended to introduce each section by remarks on the general clinical and therapeutical characters, especially the methods of examination. The price of the complete work is stated to be about 80 marks (£4).

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—News has just been received from Batavia of the sudden death of Dr. P. C Plugge, he having gone to study in the great tropical botanic garden of Buitenzorg. He was born in Middelburg, Zeeland, in 1847, studying first at Amsterdam, where he received a gold medal for his thesis on Carbolic Acid as a Disinfectant. He was afterwards Assistant in the Physiological Laboratory in Groningen, and for a short time he took charge of the chemical laboratory in Tokio by special invitation of the Japanese Government, from which post, however, he was soon recalled to become Professor of Pharmacy and Toxicology in Groningen. His published papers are numerous and varied, comprising such subjects as the Chemical Effects of Light, the Poisonous Constituents of the Ericaceæ, Aconitine, Andromedotoxin, &c.—The deaths of the following eminent foreign medical men have also been announced:—Dr. W Marmé, Professor of Pharmacology in Göttingen.—Dr. Fusore, Extraordinary Professor of Medical Pathology in the University of Turin.—Dr. Paulin Hulin, Medical Officer to the Hospices and Prisons, Louvain, Chevalier of the Legion of Honour, at the age of fifty-five years.—Dr. Emile Legros, Professor of Physiology in Brussels, and a well-known ophthalmic surgeon, suddenly, in his thirty-seventh year.—Dr Lebrou, formerly surgeon to the Orleans Hospital.—Dr. Don José de Letamendi, Professor of General Pathology in the Central University, Madrid.—Dr. Don José de Antelo, Professor of Surgical Pathology in the Manilla Medical School.

DURHAM UNIVERSITY MEDICAL GRADUATES' ASSOCIATION.—The annual meeting of this association was held at the rooms of the Medical Society of London on Wednesday, July 7th, when the following officers were elected for the year 1897-98:—President: Dr. T. Outterson Wood (in the place of Professor W. C. Arnison). Vice-presidents: Dr. S. Fielden and Mr T. H. Openshaw. Council: Dr. C. C. Cripps, Dr. C. J Cullingworth, Dr. J. W. Hembrough, Dr F. S. Palmer, Dr. H. B. W Paige, Dr. H. T. Herring, Dr G. H. Philipson, Mr. G. W. Ridley, Dr. W. J. Sheppard, Dr. T. C. Squance, and Dr. R. Steele. Honorary treasurer: Dr. W. C. Beatley. Honorary secretaries: Dr. W. D. Arnison and Dr. R. H. Milson. After the meeting the members dined together at the Café Royal, Dr. T. Outterson Wood, President, being in the chair. The usual patriotic toasts having been proposed by the President, Mr. H. T. Butlin proposed "The University of Durham," and Professor Philipson responded. The President, in proposing "Success to the Durham University Medical Graduates' Association," gave an interesting account of the history of the Medical College from its foundation in 1832 to the present time, and congratulated the association upon its great success, numbering, as it does, nearly 300 members. The honorary secretaries replied. Sir James Crichton Browne, who was a former lecturer at the College, and who was elected an honorary member of the association, proposed the health of the President, and Dr. Cullingworth proposed the Visitors which was responded to by Dr. Ernest White. Among those also present were the President of the Royal College of Surgeons of England, Sir Wm. MacCormac; the Treasurer of the Royal College of Physicians of London, Sir Dyce Duckworth; the President of the Royal Medico-Chirurgical Society, Dr. Howship Dickinson; the President of the Medical Society, Mr. Reginald Harrison; the President of the Durham University Medical College, Professor Philipson; the President of the Harveian Society, Dr. R. H. Milson; the Coroner for the Central District of the County of London, Dr. Danford Thomas; and members and guests to the number of fifty-seven.

PRESENTATION TO PROFESSOR JOHN ATTFIELD, F.R.S.—Professor John Attfield was presented on Saturday last, at Watford, on his retiring from the chair of Practical Chemistry in the School of the Pharmaceutical Society of Great Britain, with a handsome testimonial, consisting of an autograph album and silver plate. The former contained the names of eminent men of science of England and the continent. On the silver tray the following inscription is engraved: "An Album of Autographs, this Silver Tray, and a Silver Tea and Coffee Service were presented to Professor John Attfield, F.R.S., by one thousand grateful pupils and many public friends in all parts of the world on his retirement from the chair of Practical Chemistry held by him for thirty-four years in the School of Pharmacy of the Pharmaceutical Society of Great Britain."

MEDICAL MAGISTRATE.—Sir Robert M Craven, F R C.S. Eng., of Hull, has been placed on the Commission of the Peace for the East Riding of Yorkshire.

THE committee of the Central London Ophthalmic Hospital, Gray's Inn-road, have received a donation of £400 from Mrs. James Packe towards the building fund of the hospital.

WE are glad to announce that Mr. W. R. M. Wynne, the Lord-Lieutenant of the county of Merioneth-shire, has appointed Dr. John E Jones, J P, of Bryn-y-Ffynon, Dolgelley, a Deputy-Lieutenant of the county.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Lunacy Bill.

THIS Bill has been read a second time in the House of Lords, and has at present every prospect of a quick passage through that Chamber.

Infant Life Protection Bill.

This measure, after passing the House of Lords, is now in the House of Commons, where it has been read a second time and referred for detailed consideration to the Grand Committee on Law.

Verminous Persons Bill.

This Bill to give local authorities power to offer to persons infested with vermin such means of cleansing and disinfecting as they possess was read a third time on Wednesday, July 7th, in the House of Commons. Local authorities are at present without this power, and verminous persons are treated at workhouses or casual wards and so rank as recipients of Poor-law relief.

Plumbers Registration Bill.

The Bill for establishing a national system of registration for plumbers failed to get through the report stage on Wednesday, July 7th, and in consequence has now little chance of being passed during the present session.

New Naval Hospitals.

In the Naval Works Bill now before the House of Commons the Admiralty take power to build two hospitals for the treatment of zymotic diseases, one at Haslar, Portsmouth, and the other at Haulbowline, Cork.

Workmen's Compensation Bill.

During the report stage of this Bill in the House of Commons several matters of special interest to medical men were discussed. For instance, various proposals were made for the periodical examination by duly qualified medical practitioners of workmen who are receiving compensation from their employers, and as the outcome of several debates there was inserted in one of the schedules of the Bill a provision that any workman claiming compensation under the Act shall, if so required by the employer from time to time, submit himself for examination by a duly qualified medical practitioner provided and paid for by the employer. The provision further says that if the workman refuses to submit himself to such examination or obstructs it, his right to the weekly payments shall be suspended until the examination takes place, and that if the workman objects to the examination he may appeal to the arbitrator whose decision in the matter shall be final.

HOUSE OF COMMONS.

TUESDAY, JULY 6TH.

Prison Rules as to Corporal Punishment.

Sir M. White Ridley said in reply to Mr. J. A. Pease that he was laying a new rule on the subject of corporal punishment in prisons on the table of the House. He could not deal with the matter so fully as he had wished without the further legislation which he had proposed to Parliament, but which there had been no time to pass during the present session.—Mr. Powell-Williams with regard to military prisons said that it was proposed to reduce the number of offences for which corporal punishment could be awarded and to require that the order for it be given by three instead of two visitors.

Kissing the Book.

Sir Walter Foster asked the Attorney-General whether he had considered the form in which the oath was administered in courts of justice in England with reference to the sanitary objections urged against it, and whether it was the intention of the Government to make any proposals for amending the law so as to abolish the objectionable practice known as "kissing the book."—The Attorney-General (Sir Richard Webster) said that he could only repeat his reply to the hon. member that he thought the sanitary objection to the present method of administering the oath had been somewhat exaggerated. Personally he believed that the option at present existing of swearing in the Scotch form which was becoming every day more generally known, was sufficient. It was not the intention of the Government to amend the law, at any rate, during the present session. Dr. Farquharson asked whether the Attorney-General would take steps to make it more generally known that witnesses had a right to be sworn in the Scotch style.—The Attorney-General replied that he had made inquiries and had ascertained that in practically all the courts public notices had been issued and, as he had stated the option was becoming more generally known.—Mr Patrick O'Brien asked the learned gentleman to describe the Scotch form.—The Attorney-General said he must refer the hon. member to the Lord Advocate.

Fever Epidemic in Ireland.

Mr. Crilly asked the Chief Secretary to the Lord Lieutenant of Ireland if he had had any recent report from the officials of the Local Government Board of Ireland dealing with the outbreak of fever in the Belmullet Union; whether he was aware that on June 6th 44 persons were prostrated by fever in the South Island of Inniskea out of a total of 57 families; that 20 cases were reported last week; that two of the nurses attending these fever cases in Inniskea had been attacked by fever, and were on Friday last brought to the mainland and placed in hospital; and that three other nurses had been telegraphed for to Dublin and an advertisement published for a second medical officer; and what steps, if any, the Government proposed to take to deal with the existing distress, both from famine and fever, in the Belmullet Union.—Mr. Gerald Balfour said that he had received only the day previous a report from the medical inspector of the Local Government Board respecting the outbreak of fever on Inniskea Island. It had not been found possible in the brief interval since the question was placed on the paper to ascertain the number of fever patients on June 6th, but it appeared that on the following day there were 12 cases in the acute stage and 30 in the convalescent stage. One new case was reported last week, not 20 cases as alleged. There were now, in all, 14 cases in the acute stage of fever, 3 under observation, and 18 in the convalescent stage. Two of the nurses contracted the fever, and were under treatment in Belmullet. Additional nurses to replace them, as well as the resident medical officer, were landed on the island on Sunday. All the necessary steps had been taken by the Board of Guardians acting as the sanitary authority, and the Local Government Board would continue to advise and assist them in the administration of their statutory powers. He was not aware of the existence of famine in the Union.

The Case of Dr. Bynoe.

Mr. Bartley asked the Home Secretary whether he was aware that in the case of Dr. C. A. Bynoe, who was in 1852 convicted at the Old Bailey of forgery, a woman of the name of Rose Richer had confessed to the Home Office authorities that she alone was guilty of the forgery and that Dr. Bynoe was convicted in error, and whether he had taken steps to release Dr. Bynoe.—Sir M. White Ridley said he was fully aware of this woman's confession. The case of the prisoner Bynoe had been repeatedly under consideration, but neither his predecessors nor himself had found any reason to doubt the justice of his conviction.

THURSDAY, JULY 8TH.

Experiments on Living Animals.

Mr. John Ellis asked the Home Secretary whether the figures of experiments on living animals contained in Return No. 259 of this Session were obtained from the licencees who performed them, and in that case whether any steps were taken to verify their accuracy; whether each of the "licensed places" was inspected during the year to which the return related, and how many of them more than once; whether any of the visits of inspection were surprise visits, and, if so, how many; and, whether he had personally satisfied himself that the licences and certificates were all issued only to such places and persons, and with such objects, as were contemplated by the Cruelty to Animals Act, 1876.—Mr. Jesse Collings, for the Home Secretary, replied as follows:—Yes, the returns are obtained from the licencees, and the check of course upon them is supplied by the visits of the inspectors, which, with a few exceptions, are paid without notice. Four registered places at which no licences were in force, and the laboratory attached to the Board of Agriculture, which was only registered on Dec. 1st, were not visited during the year. Five places were visited once only, eight twice, twenty-five three times, two four times, three five times, and one six times. No licencee was found during any of these visits to be exceeding his powers. The answer to the last clause of the question is in the affirmative.

Qualifications of Dispensers.

Mr. Lyttelton asked the President of the Local Government Board if he could state why the standard of qualification for appointment as dispenser to a Poor-law union had been reduced so that persons other than those possessing a statutory qualification in pharmacy were now eligible for such appointments; and whether, having regard to the special technical training required in such dispensers, the Local Government Board would take steps to obtain for the sick poor in the various unions under their jurisdiction the security afforded by dispensers possessing a statutory qualification to dispense medicines.—Mr. Chaplin replied that in June, 1895, the Local Government Board issued an order by which compounders of medicines duly qualified in accordance with the regulations for the Army Medical Staff Corps were recognised as qualified for appointment as dispensers by boards of guardians. The Board had previously issued similar orders as regards particular cases. The order referred to was not issued without careful consideration.

Dog Muzzling.

Sir M. White Ridley said, in reply to a question by Mr. Schwann that he was able to quote the numbers given in the judicial statistics of persons proceeded against for offences generally in relation to dogs, a heading that included besides infringements of muzzling orders, infringements of certain statutory requirements as to keeping dogs, muzzled or otherwise, under proper control. The number of persons so proceeded against in the years 1893, 1894, and 1896 were 3639, 9265, and 31,434, of whom respectively 2962, 7833, and 27,327 were convicted. No doubt the great majority of the proceedings were for infringements of muzzling orders.

Plague Administration at Poona.

Mr. Weir asked the Secretary of State for India, having regard to the reply given by Lord Sandhurst as to certain allegations relative to the methods adopted at Poona for the suppression of the plague, and more particularly as to the statement that in the case of the inspection of the inmates of houses there was no possibility of indignity to native women, owing to the presence of lady doctors and other ladies with search parties, would he state the number of lady doctors at Poona and their names.—Lord George Hamilton said he was informed by the Bombay Government that the lady doctors engaged with search parties were Miss Bernard, M.D., Miss Crawley, L.R.C.P., Miss Dids, hospital assistant, and Mrs. Goodall, a Parsee with some medical qualifications. Other ladies were Mrs. Taylor, Miss Kelly, Mrs. Fernandez, Mrs. Balubai Awte (Hindu), Mrs. Bhimabai Awte (Hindu), Miss E. Barnard, Miss Tarkhad (Hindu), Miss M'Intosh, and the Hong Kong nurse, when not employed as a nurse.—Mr. Swift MacNeill also addressed a question to the Secretary of State on this subject.—Lord George Hamilton in the course of his reply read the following telegram from the Government of Bombay:—"Street inspection mentioned in Rand's letter of April 9th last arose thus: When searching was first instituted, women in many houses remained in dark rooms, where it was impossible to see whether they were ill, so householders were desired to cause their women to come into open place, such as reasonably light room or courtyard or street, merely that it might be seen whether they looked ill. If there appeared reason for actual medical examination, it was conducted with every regard for decency, not in public, and in case of women never by

anyone but a woman, unless no objection was raised to examination by a commissioned medical officer. Allegation that women were stripped in street to detect plague symptoms is malevolent fabrication. The native gentlemen and lady doctors must have been cognisant of street inspection, as of all that went on."

MONDAY, JULY 12TH.

London Water Question.

Mr. Causton asked the President of the Local Government Board whether his attention had been drawn to the fact that the Southwark and Vauxhall Water Company was only giving an intermittent supply of water to many of the large blocks of workmen's dwellings in certain parts of West Southwark, and was creating a grave danger to public health; and whether he proposed to take any, and if so what, measures to compel the company at once to comply with the law, and give a constant supply.—Mr. Chaplin replied that the Local Government Board had received no complaints of the water-supply being intermittent in the cases referred to, and he had, therefore, no compulsory powers even if the facts were as stated. When notice was given of the question, he instructed General Scott to make inquiries into the matter. The company did not admit the allegations, and he was informed to-day by the company that the buildings in West Southwark continued to be well supplied with water, and no complaint existed.

Mr. Tritton asked the President of the Local Government Board whether, in view of the great inconvenience and danger to which the inhabitants of Norwood had been lately exposed by the failure in the water-supply, he would represent very strongly to the Lambeth Waterworks Company the necessity of immediate notice being given to consumers in future should it be found necessary for any reason to restrict or discontinue the ordinary supply.—Mr Chaplin replied that he had communicated with the Lambeth Water Company and impressed upon them the great importance of giving early notice, so far as circumstances would permit, of any probable deficiency in the water-supply of their district. He thought he should add that the deficiency in the supply was very sudden, that it was occasioned by causes which could not have been foreseen, and was at an end after five or six days. Under such circumstances it would have been very difficult to give notice to the many thousands of water consumers in the district in time to be of practical service.

Bubonic Plague.

Mr. Knox asked the President of the Local Government Board whether his attention had been called to the bacteriological report and the despatch of March 10th from the Government of India showing that mice inoculated with an infusion from grain infected by the plague bacillus died in some cases, though the grain had been for thirteen days free from fresh infection, and that the bacilli might at a later date re-acquire toxic properties under favourable conditions; and whether he could state what steps had been taken to prevent the introduction of the plague into the United Kingdom.—Mr. Chaplin replied: My attention has been drawn to the report and despatch referred to. From the report it would appear that in an experiment in which mice were deliberately injected beneath the skin with preparations of nine different species of grain which had been purposely infected with microbes of bubonic plague, one single mouse injected with one of these nine preparations died after twenty-four hours, whilst all the others survived. As regards the mouse that died, it is stated that it "showed no appearances microscopically or otherwise of having succumbed to bubonic infection," and I am advised that no scientific conclusion should be drawn from such a result. I do not gather that the report shows "that the bacilli must at a later date re-acquire toxic properties under favourable conditions." What the report says is that the Government of India are advised that the experiments are not conclusive, since such re-acquirement of toxic properties may be possible. The steps which have been taken to prevent the introduction of plague into England and Wales are embodied in an Order relating to plague, cholera and yellow fever, which was issued by the Local Government Board in November, 1896. These regulations were brought under the direct notice of every urban, rural, and port sanitary authority in England and Wales. I also instructed medical inspectors of the department to pay special visits to a number of ports which are in somewhat frequent communication with ports of India.

TUESDAY, JULY 13TH.

Experiments on Living Animals.

Mr. Weir asked the Home Secretary whether he had yet been able to institute the promised inquiry into the allegations made by Dr. E. Berdoe in regard to the use of curare in the practice of vivisection; and, if so, would he state the result of his inquiry.—Sir M. White Ridley replied that he had made full inquiry into the allegations contained in the letter and statement which the hon. Member forwarded to him, and found that they were absolutely baseless. The experiments referred to were performed on animals under full chloroform anæsthesia; the morphia, to which alone allusion was made in the published account of the experiments, being used in addition. Curare was used, but not as an anæsthetic.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ADAMS, JOSEPH DIXON, M.D. St. Andrews, M.R.C.S., L.S.A., has been appointed a District Medical Officer of the Langport Union.

ALEXANDER, J., L.R.C.S. Edin., has been re-appointed Joint Parochial Medical Officer and Public Vaccinator, Leslie.

BAILEY, T. KIDLEY, M.D. Edin., has been appointed Certifying Factory Surgeon for the Bilston District, vice James Wells, Wolverhampton, resigned.

BOWHAY, A., L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer of Health by the Calstock District Council.

CLARK, J. S., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer and Public Vaccinator for the Mortonhampstead Sanitary District of the Newton Abbot Union, vice F. G. Engelbach resigned.

DALY, C. F., M.D. Irel., L.R.C.S. Edin., has been appointed Medical Officer for the Silverdale Sanitary District of the Wolstanton and Burslem Union.

EDWARD, A. A., M.D., C.M. Edin., has been appointed Medical Officer for the No. 1 Rawtenstall Sanitary District of the Haslingden Union.

EDWARDS, L. C., M.B., C.M. Edin., has been appointed Casualty Surgeon to the Bristol General Hospital.

FERENCI, D. M., L.R.C.P., L.R.C.S. Irel., has been appointed Medical Officer for the Debenham Sanitary District of the Bosmere and Claydon Union.

HARRISON, JAMES, M.R.C.S., L.R.C.P. Edin., has been appointed Medical Officer to the East Grinstead Isolation Hospitals.

HAY, H. D., M.B., C.M. Edin., has been re-appointed Joint Parochial Medical Officer and Public Vaccinator, Leslie.

HILDYARD, ROBERT LOXHAM, M.R.C.S., L.S.A., has been re-appointed Medical Officer and Public Vaccinator of the 2A and 2B Districts of the Langport Union.

JELLY, G. AUBREY, L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon and Registrar at the Royal Eye Hospital, Southwark, London.

MORGAN, J. A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Llandulas and Llanwrtyd Sanitary District of the Builth Union.

MUNDEN, CHARLES, M.R.C.S., L.S.A., has been re-appointed Medical Officer of the 5c District of the Langport Union.

O'CONNOR, J. E., M.B., B.Ch. Irel., has been appointed Medical Officer of Health by the Lowestoft Town Council.

PARKINSON, C. H. W., M.R.C.S., D.P.H. Edin., has been re-appointed Medical Officer of Health by the Wimborne Urban District Council.

PARTRIDGE, SYDNEY, M.D. Edin., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been re-appointed Medical Officer by the Darlaston Urban District Council, vice Samuel Partridge, resigned.

SMITH, T. F. HUGH, F.R.C.S. Eng., has been appointed Medical Officer to the Bartholomew's Hospital Convalescent Home.

SQUIRE, M. F., M.B., B.S. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer for the Infirmary and Workhouse of the parish of Paddington.

TORRENS, J., M.D., M.S. Irel., has been appointed Medical Officer for the Quatt District School, and Medical and Vaccination Officer for the Calverley and Wirehill Sanitary Districts of the Bridgnorth Union.

WATSON, W. D., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health by the Leigh-on-Sea Urban District Council.

WILKINS, WALTER, M.R.C.S., L.R.C.P. (late H.S. and H.P., Charing-cross Hospital), has been appointed House Surgeon to St. Peter's Hospital, Henrietta-street, W.C.

WILSON, JAS. S., M.D. Glasg., D.P.H. Camb., has been appointed the Certifying Surgeon for Walsall and Bloxwich Districts, vice J. Wood, resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BRADFORD UNION WORKHOUSE.—Resident Assistant Medical Officer, unmarried. Salary £100 per annum, with prescribed rations, washing, and apartments in the Workhouse. Applications to the Clerk to the Guardians.

GENERAL HOSPITAL, Nottingham.—Assistant House Physician for six months. Board, lodging, and washing in the hospital, and an honorarium of £10 10s. will be given conditionally.

GRIMSBY AND DISTRICT HOSPITAL, Grimsby.—Resident House Surgeon. Salary £80 per annum, with board, lodging, and washing.

HARTISMERE UNION, Suffolk.—Resident Medical Officer and Public Vaccinator for the Gislingham District. Salary at the rate of £60 per annum, exclusive of vaccination fees and such other extra fees as are allowed by the Local Government Board. These average about £25 per annum. Applications to the Clerk, Guardians' Offices, Eye.

HEREFORD GENERAL INFIRMARY.—Resident House Surgeon, unmarried. Salary £100 per annum, with furnished rooms, board, washing, gas, coal, and attendance.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury, London.—House Surgeon for six months, unmarried. Salary £20, with board and residence in the hospital.

HULME DISPENSARY, Dale-street, Stretford, Manchester.—House Surgeon. Salary £130 per annum, with apartments, attendance, coal and gas.

KENSINGTON UNION.—Second Assistant Resident Medical Officer for the Workhouse and Infirmary. Salary £80 per annum, with apartments, board, and washing, subject to the statutory deduction under the Poor-law Officers Superannuation Act, 1896.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Assistant Resident Medical Officer for six months. Residence, board, and washing provided, and an honorarium given on the termination of the appointment.

MACCLESFIELD GENERAL INFIRMARY.—Senior House Surgeon. Salary £100 for the first year, with board and residence. Also Junior House Surgeon. Salary £70 per annum, with board and residence at the institution.

MEMORIAL HOSPITAL, Jarrow-on-Tyne.—House Surgeon. Salary £80, rising £10 annually to £100. Board and residence provided in the hospital. Applications to Mr. J. Campbell, Surgeon, Ivy Bank, Jarrow-on-Tyne.

METROPOLITAN ASYLUMS BOARD.—Assistant Medical Officer at the South-Western Fever Hospital, Landor-road, Stockwell, S.W.,

unmarried. Salary £160 the first year, £180 the second year, and £200 the third and subsequent years of service, with board, lodging, attendance, and washing, subject to statutory deduction under the Superannuation Act, 1896. Applications to the Clerk to the Board, Chief Office of the Board, Norfolk-street, Strand, W.C.

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—Assistant Surgeon. Also Surgeon.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich-road, S.E.—Junior Resident Medical Officer for six months. Salary £30 per annum, with board, attendance, and washing.

MILL-ROAD INFIRMARY, Liverpool.—Medical Superintendent. Salary £500, with unfurnished house, coal, gas, rates, and taxes, inclusive of all fees. Applications to the Clerk to the Guardians, West Derby Union, Brougham-terrace, Liverpool.

NORTH WALES ASYLUM, Denbigh.—Second Assistant Medical Officer. Salary £100, with board, washing, and apartments. No beer allowance, and no pension given. Applications to the Clerk to the Visitors, Denbigh.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone-road, London, N.W.—Assistant Resident Medical Officer for four months. Salary at the rate of £50 per annum, with board, residence, and washing.

RIPON DISPENSARY AND COTTAGE HOSPITAL.—Resident House Surgeon and Dispenser, unmarried. Salary £70 per annum, with board and lodging.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House Surgeon. Salary £30 per annum; board, lodging, and washing provided.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House Surgeon for six months. Board, lodging, and washing provided.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, London, E.C.—Resident Medical Officer for six months. Salary at the rate of £100 per annum, with furnished apartments, board, and washing.

ROYAL INFIRMARY, Aberdeen.—Medical Superintendent. Salary £350 per annum, without residence.

SHEFFIELD UNION.—Resident Assistant Medical Officer at the Union Workhouse, Fir Vale, Pitsmoor; single or widower. Salary £100 per annum, with apartments, rations, and the other usual allowances. Applications to the Clerk to the Guardians, Union Offices, Sheffield.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—House Surgeon for two years. Salary £100 per annum, with board, lodging, and washing.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Fourth Assistant Surgeon.

Births, Marriages, and Deaths.

BIRTHS.

ECCLES.—On July 11th, at 63, Sackville-road, Hove, Brighton, the wife of G. Tolcher Eccles, M.A., M.B. Cantab, of a son.

FERGUSON.—On July 9th, at Rutland-street, Edinburgh, the wife of James Haig Ferguson, M.D., F.R.C.P. Edin., of a son.

HAMER.—On July 3th, at Dartmouth-park-hill, N.W., the wife of W. H. Hamer, M.D., of a son.

LEWIS JONES.—On July 6th, at Kenilworth-road, Ealing, the wife of H. Lewis Jones, M.D., of a son.

OLIVER.—On July 10th, at 7, Ellison-place, Newcastle-upon-Tyne, the wife of Thomas Oliver, M.D., F.R.C.P., of a son.

RAMSAY.—On June 29th, at Jesmond Dene, Bournemouth, the wife of F. Winson Ramsay, M.S., F.R.C.S. Edin., of a son.

MARRIAGES.

BALDING—AUSTIN.—On July 7th, at St. Augustine's Church, Highbury New-park, Edmund Balding, L.D.S.R.C.S.Eng., eldest son of Edmund Balding, of Fairbridge House, Upper Holloway, to Violet Constance, third daughter of Edwin Austin, J.P., of Highbury New-park, N.

HALAHAN—GALTON.—On July 14th, at St. Paul's, Upper Norwood, by the Rev. H. Stevens, M.A., Vicar of Holy Trinity, Sydenham, assisted by the Rev. R. B. Ransford, M.A., Vicar of St. Paul's, S. Crosby Halahan, of Leigh Manor, Cuckfield, Sussex, eldest son of the late Colonel S. H. Halahan, of Haighlands, Sydenham-hill, to Maud Ethel, second daughter of John Galton, M.D. Lond., of Chunam, Sylvan road, Upper Norwood.

LAUCHLAN—HILL.—On July 7th, at the Congregational Church, Grafton-square, Clapham, Charles A. Lauchlan, M.D., of Clapham-road, to Margaret Craven, seventh daughter of the late Rev. William Hill, of Beeralston, Devon.

MARTINE—TAYLOR.—On July 13th, at St. Michael's Church, Edinburgh, William Robert Martine, M.B., C.M. Edin., second son of the late William Martine, M.D., Haddington, to Dora, third daughter of the late Charles S. Taylor, S.S.C., Edinburgh.

MATTHEWS—DODD.—On July 7th, at All Saint's, Norfolk-square, W., Samuel Ryder Russell Matthews, M.R.C.S., L.R.C.P., son of the Rev. Andrew Matthews, Rector of Gumley, Leicestershire, to Katharine Frances, youngest daughter of John T. Dodd, of Cambridge-terrace, Hyde-park.

DEATHS.

COLLINS.—On July 13th, at Sydenham, the residence of his son, Dr. Thomas Collins, formerly of 23, Harcourt-street, Dublin, in his 89th year. Funeral at Norwood Cemetery on Thursday, July 15th, at 2.30.

ROGERS.—On July 12th, at 404, Commercial-road, E., George Arthur Rogers, M.R.C.S., L.S.A., Medical Officer of Health to the Limehouse District Board of Works, aged 54 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 15th, 1897.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb.	Solar Radia. in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Rainfall.	Remarks at 8.30 A.M.
July 9	29·97	S.W.	62	57	121	76	58	...	Overcast
,, 10	30·17	N.	68	60	124	79	61	...	Fine
,, 11	30·45	N.E.	62	58	118	76	58	...	Fine
,, 12	30·29	S.E.	61	56	117	72	56	...	Cloudy
,, 13	30·09	E.	68	62	124	78	57	...	Cloudy
,, 14	29·95	E.	69	61	125	80	58	...	Fine
,, 15	29·92	S.E.	67	58	124	77	55	...	Fine

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (19th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M., Ophthalmic 1.15 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), Westminster (2 P.M.).

TUESDAY (20th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY (21st).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.).

THURSDAY (22nd).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.).

FRIDAY (23rd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.).

SATURDAY (24th).—Royal Free (9 A.M. and 2 P.M.), Middlesex, (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

LECTURES, ADDRESSES, DEMONSTRATIONS, ETC.

TUESDAY (20th).—ST. GEORGE'S HOSPITAL MEDICAL SCHOOL (Hyde-park-corner, S.W.).—5 P.M. Dr. P. Manson: Diseases of Tropical Climates.

THURSDAY (22nd).—ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square).—5.30 P.M. Dr. T. D. Savill: Tuberculosis of the Skin.

FRIDAY (23rd).—ST. GEORGE'S HOSPITAL MEDICAL SCHOOL (Hyde-park-corner, S.W.).—5 P.M. Dr. P. Manson: Diseases of Tropical Climates.

During the week marked copies of the following newspapers have been received:—*Derby Express, Bradford Observer, Peterborough Advertiser, North Wales Chronicle, Cardiff Times, Brighton Gazette, Scotsman, Western Mail, Herald of Wales, Times of India, Pioneer Mail, Brisbane Telegraph, Builder, Citizen, Ceylon Observer, Cape Times, Architect, Birmingham Gazette, Newcastle Leader, Manchester Guardian, Market Harborough Mail, Bedfordshire Times, Leek Times, Liverpool Daily Post, Leamington News, Tyrone Constitution, Wellingborough News, Leeds Mercury, Melbourne Age, Llandudno Directory, Norwich Mercury, Wolverhampton Chronicle, Dundee Courier, Sussex Daily News, Burnley Express, Hampshire Chronicle, Berkhamsted Times, Bristol Mercury, Andover Advertiser, Midland Times, Coleshill Chronicle, Shrewsbury Chronicle, Yorkshire Post, Rushden Echo, Sanitary Record, Rangoon Times, Surrey Advertiser, Hertfordshire Mercury, Local Government Chronicle, Reading Mercury, Newbury Weekly News, Glasgow Herald, Sunday Times, Local Government Journal, Weekly Free Press and Aberdeen Herald, Morning Herald, South Wales Daily News, Central Somerset Gazette, Galignani Messenger, Kidderminster Times, Cardigan Observer, Hastings Observer, Exmouth Chronicle, Falkirk Herald, Dewsbury District News, Blackpool Times, West Middlesex Herald, &c., &c.*

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

☞ It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND, WHEN ACCOMPANIED BY BLOCKS, IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index and Title-page to Vol. I. of 1897, which was completed with the issue of June 26th, was given in THE LANCET of July 3rd. It is intended, in future, to include the Index and Title-page for each past half-yearly volume in the first number of the succeeding volume, as in the present case, instead of in the last number of the volume itself, as heretofore.

VOLUMES AND CASES.

VOLUMES for the first half of the year 1897 are now ready. Bound in cloth, gilt lettered, price 18s., carriage extra.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2s., by post 2s 3d.

To be obtained on application to the Manager, accompanied by remittance.

TESTIMONIAL TO MR W. J. C. MILLER.

WE mentioned in our issue of July 3rd. that some of his friends, contributors to the mathematical columns of the *Educational Times* and others, were forming a fund to present a testimonial to Mr. W. J. C. Miller, the lately retired Registrar of the General Medical Council. Included in the list of subscribers submitted to us are the names of the following members of the medical profession:—

	£	s.	d.		£	s.	d.
Sir H. W. Acland... ...	1	1	0	Dr. G. G. Morrice	0	5	0
Mr. D. Biddle	1	1	0	Sir James Paget	1	1	0
Dr. H. Gervis	1	1	0	Sir John Simon	1	1	0
Rev. Dr. Haughton ...	1	1	0	Professor Struthers... ...	1	1	0
Lord Lister	1	1	0	Mr. Thomas Wakley, Jun.	1	1	0
Dr. Donald MacAlister	1	1	0				

We understand that although the movement originated with mathematical friends of Mr. Miller, the Honorary Treasurer (the Rev. Robert Harley, M.A., F.R.S., Rosslyn, Westbourne-road, Forest-hill, S.E.) will be glad to receive any subscriptions which medical friends may wish to send.

Juniper.—The arrangement does not commend itself to us, but it would appear not to be illegal and not to traverse any regulations of the corporation to which our correspondent belongs.

DISTRICT NURSING ON A PROVIDENT BASIS.

DR. JAMIESON B HURRY, Abbotsbrook, Reading, will be glad to hear of any centre where district nursing has been organised on a provident basis, or where a payment is required, in return for the services of the district nurse, from all persons except those actually destitute. A copy of the annual report of any such centre will be welcome.

THERAPEUTIC TATTOOING IN EGYPT.

IN May last Professor Lannelongue communicated to the Académie des Sciences in Paris a note by Dr. Fouquet, of Cairo, on tattooing as a means of treating disease. According to the author, the practice, which dates from the remotest times, is common in Egypt at the present day, and women still perambulate the streets in the native quarters of the city loudly proclaiming their readiness to perform, not only tattooing, but also ear-piercing and clitoridectomy. In support of the antiquity of the custom Dr. Fouquet gives a description of a mummy which he examined in 1892. It would seem that the remains are those of a priestess of Hathor named Ament, who lived at Thebes during the eleventh dynasty, some four or five thousand years ago. The body is that of a woman "still young but extremely emaciated, with her mouth open and twisted from anguish"; and the observer was led by these signs to the conclusion that death resulted from "generalised peritonitis." Commenting on the article in Duplay's *Archives* for July, M. Henri Meige justly takes exception to this retrospective diagnosis. If all the mummies presenting leanness and wry mouths are to be taken as having come by their deaths from peritonitis then assuredly that malady must have been more deadly than the ten plagues, the condition described being universally found. As for the expression of anguish, the inference deduced is scarcely more justifiable, since mummified corpses are nearly always disfigured in the manner indicated. In the crypt of the church of Saint Michael at Bordeaux, for instance, there are a number of bodies which, owing to some preservative quality in the soil, have escaped decay, but only at the expense of contortions, more or less fantastic, that serve to convey the impression that the deceased had succumbed to painful affections. So much so, indeed, is this the case that quaint names have been bestowed by the local wits on the various groups constituting these lugubrious relics. Here, they say, we have an entire family who were poisoned by eating mushrooms; while that tall mummy, with his abdomen in shreds, was a porter who ruptured himself in the endeavour to carry too heavy burdens. The fact, nevertheless, remains, and abounds with interest, that the priestess Ament had marks of tattooing as well as traces of scarification on the lower part of her abdomen, although it does not seem at all probable that these operations were undertaken for the cure of an acute disease like peritonitis. They may have been performed with a view to prophylaxis, but it is more likely that preservation from witchcraft was the motive, if not simply adornment. Amongst the aboriginal tribes of Africa tattooing is still resorted to as a preventive of disease and accident, being regarded as a species of amulet or charm.

Mr. Mortimer Gray.—The treatment in question is a vulgar fraud.

WANTED A WORD OF ADVICE.

To the Editors of THE LANCET

SIRS,—Would any medical *confrère* versed in such matters kindly give his advice through THE LANCET as to what annual fees, and what special conditions the medical officer of a society should stipulate for, if he were required to extend his functions as medical officer to the families of members.

I am, Sirs, yours faithfully,

July 14th, 1897. D. J.

Triple Qual.—All information will be given to our correspondent by Dr. Major Greenwood, 243, Hackney-road, N.E.

EFFECTS OF WORKING IN COAL BUNKERS.

THE attention of Russian naval surgeons has for some time past been especially directed to the diseases observed amongst stokers and others employed in the engine-rooms, stokeholds, and coal bunkers of ships. Dr. Drezhnevich has recently published a paper on the effects of coal on the constitution of the atmosphere upon which he has been engaged for eight or nine years, having commenced it in 1888 in the chemical laboratory of the Cronstadt Naval Hospital under Dr. Shidlovski. The final part of the research was carried out in the Institute of Experimental Medicine attached to the St. Petersburg Medico-Chirurgical School under the direction of Professor Nenski. It was found that when rooms or bunkers containing a large quantity of coal were closed to the outer air the oxygen in them was greatly diminished, even at ordinary temperatures—that is to say, below 29° C., sometimes, indeed, disappearing altogether; at the same time, a very appreciable quantity of carbonic acid was found, which sometimes amounted to as much as 6 per cent.; hydrocarbons were also present, especially marsh gas, which generally existed to the extent of about 3 per cent. With higher temperature the vitiation of the contained air proceeded more rapidly, but carbonic oxide was not found, at all events, below 40° C. The special diseases noted among the men employed in the coal bunkers consisted of chronic anæmia and acute attacks of a spasmodic nature affecting parts or the whole body, indicating an insufficient supply of oxygen.

BORIC ACID IN MILK.

AT Barry Police-court on July 2nd three milkmen were prosecuted under Section 6 of the Food and Drugs Act. It appeared that each of the defendants had been asked to supply fresh milk, but instead had given milk with 0·3 per cent. of boric acid. The medical officer of health of Glamorganshire stated that this percentage was too high and would be injurious to a child, and he was of opinion that 0·1 per cent. of boric acid was quite sufficient to preserve the milk. The bench imposed a fine in each case of 40*s.* and costs, including advocation fee, amounting to £5 5*s.*

Nemo.—We cannot go so far as to insist upon a strict "boycott"; for, after all, the medical man's duties are primarily towards the public, and a strict "boycott" might lead to injustice to the suffering. Also, there are clubs and clubs. But if the clubs to which our correspondent refers are those where no wage limit is enforced, and where touts are employed to seduce the patients of other medical men to transfer their patronage to the club officer, we feel very strongly that no medical man should hold a post in such institutions. To do so is to break faith with the profession, while it is also to injure the suffering public by supporting a system that leads to indifferent medical treatment—the sort of treatment that must be the return for a starvation wage. The medical profession of the neighbourhood should look upon the matter in this light and then decide upon a common course of action.

ANGELICA AND SHEEP'S PARSLEY.

To the Editors of THE LANCET.

SIRS,—May I be allowed to say a few words with reference to the two cases of dermatitis caused by angelica, as recorded by Dr. David Walsh in THE LANCET of July 3rd? To my thinking the pallid young pastry-cook and his untutored friend must have actually gathered "cow parsley" (Æthusa cynapium) instead of the celestial herb they wanted for making a sweetmeat. Only a practised botanist would distinguish the genuine plant by its not possessing three long narrow pointed leaves at the base of each partial umbel. At the same time, its mischievous imitator is well known to blister the hands and to irritate the skin of those who cull it. If Dr. Walsh will kindly read what is told about "fool's parsley" in "Herbal Simples" he will readily appreciate my proffered suggestion. And in this the animal with the crumpled horn and the fool are identical, just as in the nursery rhyme where "the cow jumped over the moon." But, indeed, such a mistake, if followed up, has a serious bearing, and shows that some authoritative supervision ought to be exercised over heedless young simplers who roam the suburban fields in search of esculent wildings, else the half-pence of our children and the silver groats of our housewives may purchase for their intended delectation what will poisonously prove the "pernicious pasticcios, and the complex combinations of the confectioner." Thanking Dr. Walsh for his courteous quotation from my pages,

I remain, Sirs, obediently and faithfully yours,
July 10th, 1897. W. T. FERNIE.

E. S.—We never recommend practitioners, nor do we suggest treatment. Our correspondent's usual medical man can tell him whether a second professional opinion is necessary and can advise as to who should be invited to express it.

MEDICAL WOMEN.

WE are indebted to the *Gazette de Gynécologie* for the following items of intelligence, some of which have, however, already appeared in our columns. The Medical Commission of Louisiana has delivered a diploma, authorising her to engage in medical practice, to Miss Emma Wakefield, who belongs to the coloured race. This lady is said to be the first of her lineage who has received this distinction in the Southern States, and probably throughout the entire Union. She is the daughter of ex-Senator Wakefield, and was educated in the medical section of the Coloured University in New Orleans. The University of Vienna lately, for the first time, promoted a lady to the dignity of Doctor of Medicine. The new graduate, Mlle. Possanner d'Ehrenthal, had great difficulty in persuading the authorities to recognise her Zürich credentials, but was eventually permitted to present herself for examination before the Viennese board, and having triumphantly surmounted all the tests was duly admitted as a fully qualified practitioner. Following the example set by Vienna, the University of Budapest has, likewise for the first time, bestowed its medical degree upon a member of the female sex, the learned recipient being Mme. Wilhelmine Wartha, *née* Countess Hugonnay, whose husband is a professor at the Budapest Faculty of Medicine. The Medical College for Women in New York was destroyed by fire on April 22nd last. It was the sole recognised institution of its kind in America and contained upwards of 100 students, having been founded in 1854 by the sisters Elizabeth and Emily Blackwell. The building so unfortunately consumed was erected by private subscription at a cost of £25,000.

MR. JUSTICE LAWRANCE ON THE MEDICAL PROFESSION.

ON July 9th, at the Bristol Summer Assizes, during the hearing of a case in which a midwife was acquitted on a charge of murder, one of the witnesses stated that her daughter went to several medical men and told them of the serious state of the deceased, but they refused to come. She also saw a police officer and asked him if a medical man could not be compelled to attend. During his summing-up Mr. Justice Lawrance observed that he did not understand what the witness meant when she said that the medical men refused to come. From what he knew of the medical profession he did not think any member of it would refuse to attend a woman in so serious a condition. Probably the deceased, being a pauper patient, was under the care of the parish surgeon, who went on the receipt of a note from the relieving officer.

P. D. (Hoxton).—We do not agree that the paper in question failed in clearness. To us the points mentioned by our correspondent were sufficiently evident.

THE INTER-MARRIAGE OF DEAF-MUTES.

To the Editors of THE LANCET.

SIRS,—Both my parents had the misfortune to be deaf and dumb, my mother from birth and my father as the result of fever when six years of age. They had six children, including myself, two of whom died in infancy, the remainder being healthy and strong in every respect. The question which has been very unpleasantly brought before me recently is, whether in the event of my marrying the possibilities are that any children my wife might have by me would be similarly afflicted. I may say that there is no knowledge of any other member of my family previously ever having been so afflicted. I should be glad if you could give me an opinion, as, of course, the matter to me is a very serious one. Thanking you in anticipation,

I am, Sirs, yours faithfully,
July 9th, 1897. DEEPLY INTERESTED.

*** If the son of a deaf-mute marries, being himself of sound constitution and brain power, he is not likely to transmit mutism to his children. Mutism from early acquired deafness is not transmitted.—ED. L.

THE HEAT IN AMERICA.

WE have not in this country had any unusual heat up to the present time; the summer has hitherto been somewhat changeable—relatively cold alternating with hot days; but in America the heat seems to have been excessive, and as a consequence the amount of sunstroke and heat exhaustion unusually large. Between 300 and 400 deaths from sunstroke and heat apoplexy have been reported, and the amount of prostration, sickness, and physical discomfort attributable to the effects of the heat is incalculable. We hear, too, of the more or less wholesale exodus of the urban populations for watering-places, and of the efforts made by those left behind in the big cities to sleep outside their houses or on the top of them. It is quite possible that the heat-wave which is said to have prevailed in America may yet appear in this country, although, judging from the past, it is scarcely likely that the temperature here will reach the same height or be so persistent as it frequently is in America. The great thing, no doubt, to be done by those who are not compelled to remain in cities and towns is to get away from them to the seaside, the country, or the mountains, or to Switzerland. For those who cannot do so strict temperance in living, light and easy clothing composed of a texture freely permeable by the air, the occupation of freely ventilated rooms, especially bedrooms and dormitories, and the use of ice and iced drinks, with the avoidance of alcoholic stimulants, are the main points to be attended to, and the experience and common-sense of most people commonly cause them to have recourse to them.

Dubious.—The "remedy" in question is a quack preparation and is run on most mischievous lines.

"THE SAYINGS OF OUR LORD."

THE Egypt Exploration Fund, in the persons of Mr. Bernard P. Grenfell and Mr. Arthur S. Hunt, have recently discovered, as is now well known to everyone, a remarkable papyrus, the date of which is about 200 A.D., and the contents of which are reported sayings of Our Lord. The complete result of the excavations will be published in the next Archæological Report of the Fund, but in the meantime a fragment has seemed of such a remarkable character that a translation of it has been issued immediately. One saying, which has a familiar ring, merits quotation to a medical audience:—"Jesus saith, A prophet is not acceptable in his own country, neither doth a physician work cures upon them that know him." Here we have a remarkable addition to the well-known text from St. Luke (Chap. IV, v. 24): "No prophet is accepted in his own country," and an addition the practical shrewdness and accuracy of which every medical man will recognise. Who has not found special difficulty in treating his personal friends?

Communications, Letters, &c., have been received from—

A.—Dr. Arlidge, Staffordshire; Association for the Oral Instruction of the Deaf and Dumb, Lond., Director of; A. B. C., Leeds; Messrs. Anderson and Co., Lond.; Mr. E. A. Armstrong, Lond.

B.—Dr. Byrom Bramwell, Edin.; Messrs. Burgoyne, Burbidges & Co., Lond.; *Birmingham Daily Post*, Proprietor of; Dr. A. O. Bobardt, H.M.S. *Dart*, Cooktown, N.E. Queensland; Dr. A. Bronner, Bradford; Mr. C. Birchall, Liverpool; Miss E. P. Bullar, Southampton; Dr. G. Sandison Brock, Lausanne; Messrs. Ballard and Wilson, Merton; Mr. R. Baker, Lond.; Dr. D. Bright, Constantinople; Messrs. Burroughs, Wellcome, and Co., Lond.; Bedford General Infirmary, Secretary of; Mr. Austin Brereton, Lond.; Dr. M. Bandouin, Paris; Dr. H. A. Ballance, Norwich; Mr. G. S. F. Bains, Jarrow-on-Tyne; Dr. Bagshawe, St. Leonards-on-Sea; Mr. C. S. Bowker, Newport, Mon.; Mr. E. Stanmore Bishop, Manchester; Dr. R. Bell, Glasgow; Mr. G. F. Blake, Dublin; Dr. H. P. D'Arcy Benson, Guernsey; Rev. W. St. Hill Bourne, Lond.

C.—Dr. R. A. Caldwell, New York; Dr. John Cavafy, Lond.; Miss M. Canning, Lond.; Messrs. Cuff Bros., Dover; Messrs. E. Cook and Co., Lond.; Cinchona, Lond.; Messrs. Clark, Son, and Platt, Lond.; Mr. W. F. Clay, Edinburgh; Cambrian Railways Co., General Manager of; Messrs. T. Christy and Co., Lond.; Messrs. Crossley, Moir, and Co., Lond.; Mr. J. Cowley, Lond.; Cornwall County Council, Chairman of; Mr. T. Cooke, Lond.

D.—Mr. H. W. Dodd, Lond.; Deputy Town Clerk, Harrogate; Dr. W. D. Donnan, Holywood; Mrs. M. Dawson, Arundel; The F. A. Davis Co., Philadelphia, U.S.A.; Dr. W. Devereux, Tewkesbury; Devonshire Hospital and Bath Charity, Secretary of; Mr. P. Dunlop, Lond.; Mr. R. Dunstan, Lond.; Mr. R. J. Dunglison, Philadelphia.

E.—Mr. G. Ellis, Rochdale; Messrs. Eason and Son, Dublin.

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